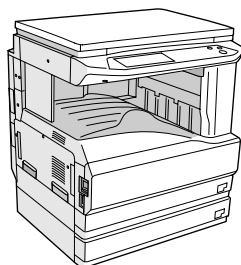
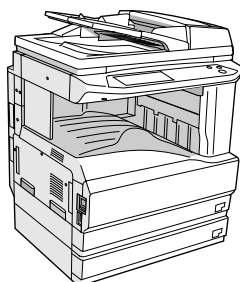


# SHARP SERVICE MANUAL

CODE: 00ZARM277/A1E



AR-M236/M276



AR-M237/M277

## DIGITAL MULTIFUNCTIONAL SYSTEM

## AR-M236/M276 MODEL AR-M237/M277

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Parts marked with “△” are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

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# [1] NOTE FOR SERVICING

This Service Manual uses some photographs to assure safe operation.  
This Service Manual uses some photographs to assure safe operation.  
Please understand the meanings of photographs before servicing.

- ⚠ **WARNING:** If this WARNING should be ignored, a serious danger to life or a serious injury would be resulted.
- ⚠ **CAUTION:** If this CAUTION should be ignored, an injury or a damage to properties would be resulted.

## 1. Warning for servicing

- 1) Be sure to connect the power cord only to a power outlet that meets the specified voltage and current requirements.  
Avoid complex wiring, which may lead to a fire or an electric shock.  
It may cause a fire or an electric shock.
- 2) If there is any abnormality such as a smoke or an abnormal smell, interrupt the job and disconnect the power plug.  
It may cause a fire or an electric shock.
- 3) Be sure to connect the grounding wire. If an electric leakage occurs without grounding, a fire or an electric shock may be the result.  
To protect the machine and the power unit from lightening, grounding must be made.
- 4) When connecting the grounding wire, never connect it to the following points.  
It may cause an explosion, a fire or an electric shock.
  - Gas tube
  - Lightning conductor
  - A water pipe or a water faucet, which is not recognized as a grounding object by the authorities.
  - Grounding wire for telephone line
- 5) Do not damage, brake, or work the power cord.  
Do not put heavy objects on the power cable. Do not bend it forcibly or do not pull it extremely.  
It may cause a fire or an electric shock.
- 6) Keep the power cable away from a heat source.  
Do not insert the power plug with dust on it into a power outlet.  
It may cause a fire or an electric shock.
- 7) Do not put a receptacle with water in it or a metal piece which may drop inside the machine.  
It may cause a fire or an electric shock.
- 8) With wet or oily hands, do not touch the power plug, do not insert the telephone line jack, do not operate the machine, or do not perform servicing.  
It may cause an electric shock.

## 2. Precautions for servicing

- 1) When servicing, disconnect the power plug, the printer cable, the network cable, and the telephone line from the machine, except when performing the communication test, etc.  
It may cause an injury or an electric shock.
- 2) There is a high temperature area inside the machine. Use an extreme care when servicing.  
It may cause a burn.
- 3) There is a high voltage section inside the machine which may cause an electric shock. Be careful when servicing.
- 4) Do not disassemble the laser unit. Do not insert a reflective material such as a screwdriver in the laser beam path.  
It may damage eyes by reflection of laser beams.
- 5) When servicing with the machine operating, be careful not to squeeze your hands by the chain, the belt, the gear, and other driving sections.

- 6) Do not leave the machine with the cabinet disassembled.  
Do not allow any person other than a serviceman to touch inside the machine. It may cause an electric shock, a burn, or an injury.
- 7) When servicing, do not breathe toner, developer, and ink excessively. Do not get them in the eyes.  
If toner, developer, or ink enters your eyes, wash it away with water immediately, and consult a doctor if necessary.
- 8) The machine has got sharp edges inside. Be careful not to damage fingers when servicing.
- 9) Do not throw toner or a toner cartridge in a fire. Otherwise, toner may pop and burn you.
- 10) When replacing the lithium battery of the PWB, use a specified one only.  
If a battery of different specification is used, it may be broken, causing breakdown or malfunction of the machine.
- 11) When carrying a unit with PWB or electronic parts installed to it, be sure to put it in an anti-static-electricity bag.  
It may cause a breakdown or malfunctions.

## 3. Note for installing site

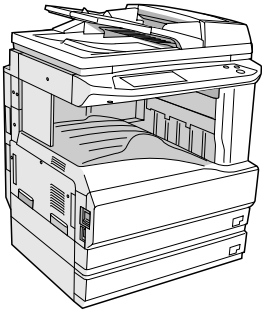
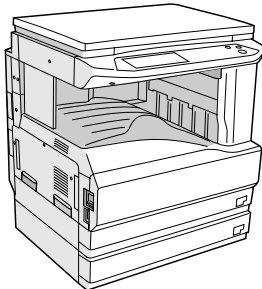
Do not install the machine at the following sites.

- 1) Place of high temperature, high humidity, low temperature, low humidity, place under an extreme change in temperature and humidity.  
Paper may get damp and form dew inside the machine, causing paper jam or copy dirt.  
For operating and storing conditions, refer to the specifications described later.
- 2) Place of much vibrations  
It may cause a breakdown.
- 3) Poorly ventilated place  
An electro-static type copier will produce ozone inside it.  
The quantity of ozone produced is designed to a low level so as not to affect human bodies. However, continuous use of such a machine may produce a smell of ozone. Install the machine in a well ventilated place, and ventilate occasionally.
- 4) Place of direct sunlight.  
Plastic parts and ink may be deformed, discolored, or may undergo qualitative change.  
It may cause a breakdown or copy dirt.
- 5) Place which is full of organic gases such as ammonium  
The organic photoconductor (OPC) drum used in the machine may undergo qualitative change due to organic gases such as ammonium.  
Installation of this machine near a diazo-type copier may result in dirt copy.
- 6) Place of much dust  
When dusts enter the machine, it may cause a breakdown or copy dirt.
- 7) Place near a wall  
Some machine require intake and exhaust of air.  
If intake and exhaust of air are not properly performed, copy dirt or a breakdown may be resulted.
- 8) Unstable or slant surface  
If the machine drops or fall down, it may cause an injury or a breakdown.  
If there are optional paper desk and the copier desk specified, it is recommendable to use them.  
When using the optional desk, be sure to fix the adjuster and lock the casters.

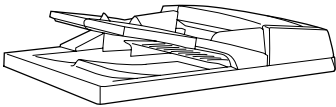

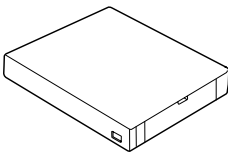
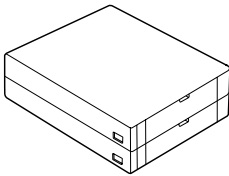
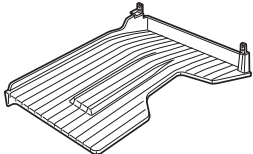
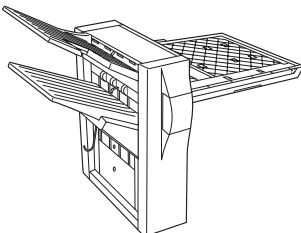
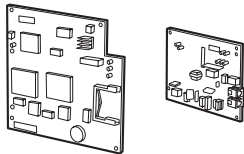
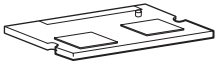
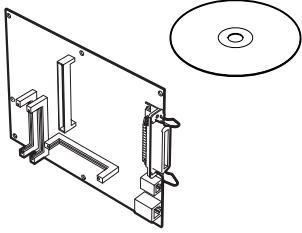
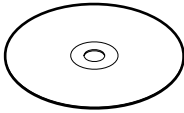
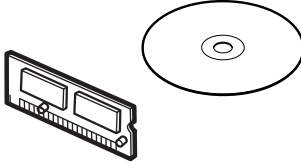
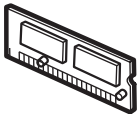
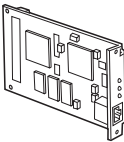
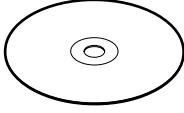
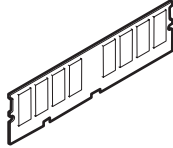
## [2] CONFIGURATION

### 1. Product Line and options

#### A. Line of machines

Model name	Composition	Model name	Composition
AR-M277/M237 (For SEC/SECL)	Copier/Printer (SPLC) model	AR-M276/M236	Copier/Printer (SPLC) model
			

#### B. Line of options

			
AR-RP7 Reversing single pass feeder	AR-VR6 Platen cover (OC)	AR-D21 500-sheet paper feed unit	AR-D22 2X500-sheet paper feed unit
			
AR-TR3 Job separator tray kit	AR-FN5N Finisher	AR-FX7 Facsimile expansion kit	AR-MM9 8MB FAX memory
			
AR-P17 Printer expansion kit	AR-PK1/N PS3 expansion kit	AR-PF1 Bar code font kit	AR-PF2 Flash ROM kit
			
AR-NC5J Print server card	AR-NS2 Network scanner expansion kit	AR-SM5 256MB expansion memory board AR-SM6 512MB expansion memory board	



## C. Combination of options list

○: Installable

×: Not available

Section	Option		Main unit Model		Note
	Item	Model	AR-M237/M277	AR-M236/M276	
Automatic document feeder and OC	Reversing single pass feeder	AR-RP7	Standard	○	
	Platen cover (OC)	AR-VR6	×	○	
Paper feed system	500-sheet paper feed unit	AR-D21	○	○	500 x 1 (80g/m <sup>2</sup> )
	2X500-sheet paper feed unit	AR-D22	○	○	500 x 2 (80g/m <sup>2</sup> )
Paper exit system	Job separator tray kit	AR-TR3	○	○	
	Finisher	AR-FN5N	○	○	
	Staple cartridge	AR-SC1	○	○	For AR-FN5N
FAX system	Facsimile expansion kit	AR-FX7	○	○	FAX board option available only for SEC/SECL/SEEG/SUK/SCA/SEIS/SEES/SEB/SEN/SEF/SRS/STCL/SRSSC/Philippines/SRH/SBI/SMEF/South Africa/Taiwan/SOCC
	8MB FAX memory	AR-MM9	○	○	
	PC-FAX (only sending)	—	○	○	
Printer system	Printer expansion kit	AR-P17	○	○	The AR-P17 must be installed.
	Print server card	AR-NC5J	○	○	
	Bar code font kit	AR-PF1	○	○	
	Flash ROM kit	AR-PF2	○	○	
	PS3 expansion kit	AR-PK1/N	○	○	
Memory board (From July 2003 onward)	256MB expansion memory board	AR-SM5	○	○	
	512MB expansion memory board	AR-SM6	○	○	
Software	Network scanner expansion kit	AR-NS2	○	○	The memory of 128MB must be added.

For details of the options, refer to the Service Manual of each option.

## [3] SPECIFICATIONS

This model is designed as an SPLC printer, and can be extended for use as a PCL6/PS3/NC/scanner by options. For details, refer to the Service Manual of the AR-P11/AR-PK1/AR-NC5J/AR-NS2.

### 1. Basic specifications

#### (1) Type

Machine Type	Desktop type
--------------	--------------

#### (2) External dimensions

Floor to OC top surface	623 (W) x 609.5 (D) x 673 (H)mm (24.5 (W) x 24 (D) x 26.5 (H) inch)
Floor to Glass surface	623 (W) x 609.5 (D) x 640.5 (H)mm (24.5 (W) x 24 (D) x 25.2 (H) inch)
Floor to RSPF surface	623 (W) x 609.5 (D) x 785.5 (H)mm (24.5 (W) x 24 (D) x 30.9 (H) inch)

#### (3) Weight

AR-M276/M236	41.8 kg (including DV), 39.8 kg (excluding DV) (92 lbs. (including DV), 87.7 lbs. (excluding DV))
AR-M277/M237	49.3 kg (including DV), 47.3 kg (excluding DV) (108.6 lbs. (including DV), 104.2 lbs. (excluding DV))

#### (4) Power supply

Voltage	100V/110V/120V/127V/230V (common with 200V)/ 240V
Frequency	50/60Hz common
Power switch	One power source

## 2. Operation specifications

### A. Common operation

#### (1) Warm up time

Warm-up time	Under 23 sec.
Pre-heat function	Yes

#### (2) Jam recovery time

About 10sec (Leaving the machine for 60 sec after opening the door, standard condition, polygon stop.)
--

### B. Copy mode

#### (1) Document size

Max. document size	A3 paper (11" x 17")
--------------------	----------------------

#### (2) Picture quality mode

Picture quality mode	Density adjustment step	Toner save mode
Text Auto mode	1 step	Selectable
Text mode	5 steps	Selectable
Text/Photo mode	5 steps	Selectable
Photo mode	5 steps	—
Super Photo mode	5 steps	—

### (3) Copy magnification ratio

#### • Normal mode

Copy magnification ratio	Magnification range/fixed magnification
Zoom width	25 to 400% (50 to 200% for RSPF)
Fixed magnification mode	AB Series: 25, 50, 70, 81, 86, 100, 115, 122, 141, 200, 400% 5R+5E (50, 70, 81, 86, 100, 115, 122, 141 and 200% for RSPF) Inch Series: 25, 50, 64, 77, 100, 121, 129, 200, 400% 4R+4E (50, 64, 77, 100, 121, 129 and 200% for RSPF)
Independent magnification width	25 to 400% for horizontal/vertical (50 to 200% for RSPF)

#### • 1200 dpi mode

Copy magnification ratio	Magnification range/fixed magnification
Zoom width	50 to 200% (50 to 141% for RSPF)
Fixed magnification mode	AB Series: 50, 70, 81, 86, 100, 115, 122, 141, 200% 4R+4E (50, 70, 81, 86, 100, 115, 122 and 141% for RSPF) Inch Series: 50, 64, 77, 100, 121, 129, 200% 3R+3E (50, 64, 77, 100, 121 and 129% for RSPF)
Independent magnification width	50 to 200% for horizontal/vertical (50 to 141% for RSPF)

Magnification precision	Normal copy: 100%±1.0% Enlargement copy: Set magnification ±1.0% Reduction copy: Set magnification ±1.0%
-------------------------	--

### (4) Job speed

#### a. First Copy Time

Normal	Less than 4.8 sec. (when the single copy)
--------	---

\* When paper of A4/Letter is fed from the upper cassette of the machine and discharged.

#### b. Copy speed

Mode	AR-M276/M277	AR-M236/M237
1 scan multi copy	(600 dpi) (1200 dpi)	27 cpm 13.5 cpm
		23 cpm 13.5 cpm

\* When A4/Letter

#### b. Multi copy speed (sheets/minute)

Document Size	AR-M276/M277	AR-M236/M237
	600 dpi	1200 dpi
A3	15	7.5
B4	17	8.5
A4 (Horizontal feed)	27	13.5
A4 (Vertical feed)	18	9
B5 (Horizontal feed)	27	13.5
B5 (Vertical feed)	21	10.5
11" x 17"	14	7.5
8-1/2" x 14"	16	8
8-1/2" x 13"	17	8.5
8-1/2" x 11" (Horizontal feed)	27	13.5
8-1/2" x 11" (Vertical feed)	18	9
A5/INV	27	13.5

\* The slowest speed is listed in enlargement/reduction copy.

\* Single-side copy

### (5) Max. multi-copy (print) quantity

999 sheets
------------

### (6) Picture quality

#### a. Image process

Picture quality mode	Image process (Software)
Text Auto mode	• 2 gradations • Area separation • Error diffusion
Text mode	
Text/Photo mode	
Photo mode	Dither
Super Photo mode	

#### b. Toner save mode

Toner save percentage	10%
-----------------------	-----

#### c. Zoom method

Main scanning direction	Performed through image processing
Sub scanning direction	Performed by image processing and changing scanning speed

#### d. Resolution

##### • Read

Main scanning direction	Sub scanning direction
400 dpi	400 dpi

##### • Write

Main scanning direction		Sub scanning direction	
Basic resolution	Virtual resolution	Basic resolution	Virtual resolution
600 dpi	1200 dpi	600 dpi	1200 dpi

Copy magnification ratio	Position	
	Center	Corners
25% to 49%	—	—
50% to 69%	3.2 line/mm	2.8 line/mm
70% to 94%	3.6 line/mm	3.2 line/mm
95% to 105%	5.0 line/mm	4.5 line/mm
106% to 141%	5.0 line/mm	4.5 line/mm
142% to 400%	5.0 line/mm	4.5 line/mm

#### e. Gradation

Read	256 gradations
Write	2 gradations

## 3. Engine specifications

### A. Operation and display section

Display unit	Touch panel
Operation system	Button switch system

### B. Paper feed, transport, paper exit section

#### (1) Paper feed ability

Paper feed section	2 cassettes + multi manual feed
Paper feed capacity	500 x 2 + 100 (80 g/m <sup>2</sup> )
Paper feed size	AB Series: A3 to A6R Inch Series: 11"x17" to 8.5"x5.5"
Remaining detection	Cassette section: empty detection only available Manual paper feed section: empty detection only available

#### • Details of paper feed section

Paper feed capacity	500 (80 g/m <sup>2</sup> )
Paper weight	56 to 105 g/m <sup>2</sup> (15 to 28 lbs)
Paper feed size	A3/B4/A4/A4R/B5/B5R/A5/16K/16KR/8K 8.5x11/8.5x14/11x17/8.5x13/8.5x11R/8.5x5.5
Paper kind	Standard paper (56 to 80 g/m <sup>2</sup> ), normal paper (80 to 105 g/m <sup>2</sup> ), special paper
Special paper	Recycle paper
Paper size selection	User operation (Touch panel operation)
Cassette attachment/detachment	Yes
Remarks	A5, 8.5 x 5.5 (only for tray 1) B5 is not applicable to tray 2.

#### • Manual feed section

Paper weight	52 to 200 g/m <sup>2</sup> (14 to 54 lbs)
Paper Size	AB Series: A3 to A6R Inch Series: 11"x17" to 8.5"x5.5"
Paper kind	Multi feed: Standard paper (52 to 80 g/m <sup>2</sup> ), special paper (Recycle paper/OHP/label paper/postcard/envelope), thick paper (max. 200 g/m <sup>2</sup> ) Single feed: Standard paper (52 to 128 g/m <sup>2</sup> ), special paper (Recycle paper/OHP/label paper/postcard/envelope), thick paper (max. 200 g/m <sup>2</sup> )
Size detection	Yes
Guide display	A3/A4,11,B4/B5,8.5,A4R/A5,B5R,A5R,5.5

\* When poor image quality is resulted by the use of OHP sheet, adjust with SIM 44-34.

### (2) Finishing ability

Paper exit section		Paper exit tray (1 tray)
Paper exit face		Face down
Capacity		500 sheets (A3, B4, 11 x 17, 8.5 x 14, 8.5 x 13: 300 sheets)
Full detection		No
Paper detection		Yes
Finishing		Yes
E-sort capacity	600 dpi	90 sheets (Max. 2970 sheets) of A4 standard documents (Sharp A4 standard document Test Chart B (6%))
	1200 dpi	16 sheets (Max. 528 sheets) of A4 standard documents (Sharp A4 standard document Test Chart B (6%))
Offset function		Depending on the shifter.
Stapling		Available when the finisher is installed.

### (3) Job separator exit tray (AR-TR3)

#### a. Condition

In case of Optional function (printer, FAX) is set up as MFD.
---

#### b. Simultaneous wrapping in kit

Job separator tray
Setting manual book

#### c. Simultaneous wrapping

Setting manual book
---------------------

#### d. Function

This exit tray is set up above main exit tray, and can separate copier exit, printer exit and FAX exit.
---

#### e. Many of tray

1 (this tray can not set up more than 2)
--

**f. Separator system**

by control of main machine
----------------------------

**g. Exit paper size**

Upper exit tray (Job separator tray)	AB system	A3 to A6
	Inch system	11 x 17 to 8.5 x 5.5
Lower exit tray (Main machine exit tray)	AB system	A3 to A6
	Inch system	11 x 17 to 8.5 x 5.5

**h. Exit paper weight**

52 to 128g/m <sup>2</sup> (14 to 34.1lbs)
---

**i. Paper pass**

center (same as main unit)
----------------------------

**j. Exit area/finishing**

Upper exit tray (Job separator tray)	Face down
Lower exit tray (main machine exit tray)	Face down

**k. Power supply**

Power supply	DC 24V (from main machine)
Power consumption	5.6W

**l. Method of movement**

with original motor (not with main machine)
---

**m. Machine weight**

0.6 kg
--------

**n. Exit capacity**

Upper exit tray (Job separator)	100 sheets
Lower exit tray (main machine exit tray)	500 sheets (*)

\* 300 sheets except for A4/LT

**o. Tray full detector**

Upper exit tray (Job separator)	Yes
Lower exit tray (main machine exit tray)	Yes

**p. Concept of function**

Upper exit tray (Job separator)	Copy/FAX/Printer (This setting can be done by users.)
Lower exit tray (main machine exit tray)	Copy/Printer/FAX (This setting can be done by users.)

**q. Main color of cabinet**

Frosty white
--------------

**r. Setting**

to be easy setting
--------------------

**C. Optical (Image scanning) section****(1) Type**

Flat-bed type/monochrome
--------------------------

**(2) Document reference position**

Rear left reference
---------------------

**(3) Resolution**

Main scanning direction	Sub scanning direction
400 dpi	400 dpi

**(4) Gradation**

256 gradations (8-bit)
------------------------

**(5) Original size/Scanning area****a. Max. original size**

A3 paper (11" x 17")
----------------------

**(6) Scanning speed**

122mm/sec (600 dpi: magnification ratio 100%)
61mm/sec (1200 dpi: magnification ratio 100%)

**(7) Light source (lamp)**

Type	Xenon
Drive voltage	1.5 kV

**(8) Read sensor**

Type	Reduction optical system image sensor (CCD)
	Monochrome

**D. Scanner (exposure) section****(1) Resolution**

Main scanning direction	Sub scanning direction
600 dpi	600 dpi

**(2) Gradation**

2 gradations
--------------

**(3) Laser unit specifications**

r.p.m.	28,800 rpm
Mirror surfaces	6 faces
Laser power	0.4mW/600dpi, 0.2mW/1200dpi
Laser beam size	60μ (Main scan) x 70μ (Sub scan)
Laser wave length	785nm

**E. Image process section**

Imaging speed		600 dpi : 122 mm/sec. 1200 dpi : 61 mm/sec.
Photo conductor	Type	OPC drum (dia. 30mm)
	LIFE	75,000 sheets
Toner	Type	Developer (Black)
	LIFE	25,000 sheets (Toner, life: 25k, Developer life: 75k)
Charge	System	(-) DC scorotron (saw tooth)
	Voltage	560μA constant electric current
Transfer	System	Transfer roller
	Voltage	18μA (electric current)
Exposure		Xenon lamp
Developing		Dry, 2-component magnetic brush development
Separation		(-) DC scorotron
Discharge		—
Cleaning		Blade

**F. Fusing**

Type	Heat roller	
Lamp	Type	Halogen lamp
	Voltage	100V
	Power consumption	1000W
Fusing temperature	185° (600 dpi)	
	160° (1200 dpi)	
Heat roller	Teflon coated roller	
Pressure roller	Silicone rubber roller with re-engerized cube	
Separation system	Natural separation (with pawl)	

**G. Drive**

Drive section	Motor
Main motor	DC brushless motor

#### 4. Additional functions, copy functions, and expanded functions

APS	Yes (No for APS by flow scan with the RSPF)
AMS	Yes (No for AMS by flow scan with the RSPF)
Stream feeding mode	Yes
Job build function	Yes (Copy/Scan)
Auto tray switching	Yes (No for manual paper feed)
Memory copy (600 dpi)	Yes (1 page memory provided as standard)
Memory copy (1200 dpi)	Yes (1 page memory provided as standard)
Rotation copy	Yes
E-sort	Yes
XY zoom	Yes When the OC is used: Landscape/Portrait 25 – 400% (50 – 200% for 1200 dpi) When the RSPF is used: Landscape/Portrait 50 – 200% (50 – 141% for 1200 dpi)
1 set 2 copy	Yes (No for enlargement)
Binding margin	Yes Default AB series: 0 – 20 mm (Unit of 1 mm) Inch series: 0 – 1 inch (Unit of 1/8 inch)
Edge erase	Yes Default AB series: 0 – 20 mm (Unit of 1 mm) Inch series: 0 – 1 inch (Unit of 1/8 inch)
Center frame erase	Yes Default AB series: 0 – 20 mm (Unit of 1 mm) Inch series: 0 – 1 inch (Unit of 1/8 inch)
Booklet copy	Yes (Printing only)
White/black reversion	Yes Whole surface only (Can be inhibited with the simulation.)
2 in 1/4 in 1	Yes
Sorter	Yes Offset function (shifter or finisher) required
Mix paper feed	Yes (Only when this function is set)
Preheating	Yes (Conditions are set with the key operator program.)
Auto power shut off function	Yes (Conditions are set with the key operator program.)
Message display	Yes
Key operator program	Yes
Printer status monitor/Printer administration utility	Yes (A PCL printer board is required (TCP/IP only). To use another protocol, an NIC card is required.)
Wireless LAN support	Yes (A 3rd party part is recommended.)
Coin vendor support	Yes (Option only for the models for dealers)
Auditor support	Yes
Duplex	Yes (Standard)
Total counter	Yes
Toner save	Yes
Department management	Yes (100 departments)
Job registration/call	Yes (10 jobs)
Cover paper	Yes (Insertion and stapling must be allowed from manual feed.)
OHP insert paper	Yes (Only printer function)

Self print function	Yes (The service simulations in the machine and the key operation list are printed.)
Built-in clock	Yes
Paper exit tray selection	(When the finisher is installed) Machine: Copy/FAX/*Printer Top tray: Copy/*FAX Offset tray: Printer/*Copy  (When the job separator is installed) Machine: *Copy/Printer/FAX Job separator tray: Copy/*Printer/*FAX  * Default: (The above setup items for each paper exit tray can be changed by the user.)
1 page memory	48MB

#### 5. Safety and environmental protection standards

##### (1) Safety and environmental protection standards

Item	
Environment acknowledgment	USA: EnergyStar Canada: ECP, EnergyStar Germany: Blue angel conformity Europe: EnergyStar North Europe: Nordic swan
Safety acknowledgement & EMI	USA: UL/FDA/FCC Canada: cUL/FDA/FCC Europe: CE/SEMKO/ITS GS UK: CE/SEMKO/ITS GS Australia: IEC60950 conformity/C-TICK Taiwan: Taiwan EMI (Class B)/CNS conformity Russia: GOST-R Middle East, Africa: CE conformity/IEC60950 conformity/CISPR22 conformity China: CCC Others: ICube/NOM (Mexico)/FCC conformity/CISPR22 conformity/IS112/IS961-6.1/2

##### (2) Ozone level

Ozone	Less than 0.02mg/m <sup>3</sup>
Dust	Less than 0.075mg/m <sup>3</sup>

##### (3) Noise level

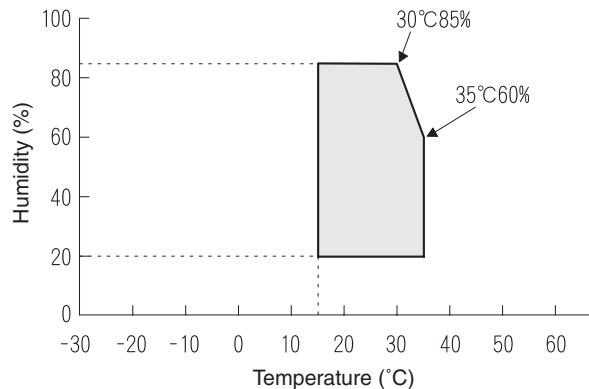
Operating	Less than 63dB
On standby	Less than 40dB

## 6. Environment conditions

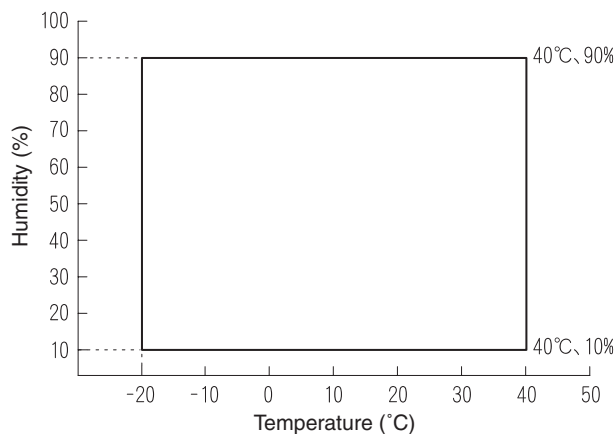
### (1) Space required

Folded multi manual feed	628 (W) × 585.5 (D) mm
Open multi manual feed	894 (W) × 585.5 (D) mm

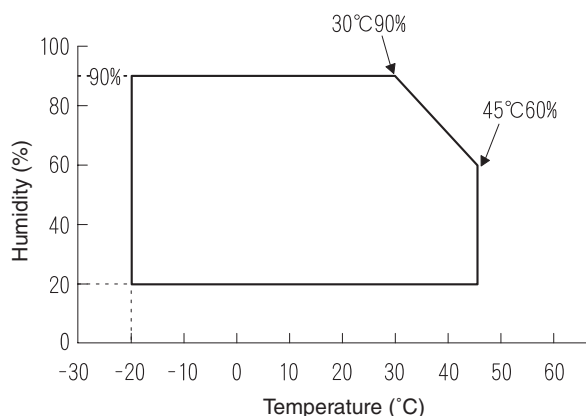
### (2) Operating ambient conditions



### (3) Ambient storage conditions



### (4) Ambient conditions for transporting



### (5) Atmospheric pressure

595 mmHg or above
-------------------

### (6) Standard temperature and humidity

Temperature	20 to 25°C
Humidity	65±5%RH

## 7. IMC board functions

* Sort function (Electronic sort)	32MB (Copy: 16MB, Print: 16MB) 90 sheets (max. 1500 sheets) with A4 standard documents at 600dpi, 22 sheets (max. 726 sheets) with A4 standard documents at 1200dpi. Offset paper exit by the shifter function
* Group function	32MB (Copy: 16MB, Print: 16MB) 90 sheets (max. 1500 sheets) with A4 standard documents at 600dpi, 22 sheets (max. 726 sheets) with A4 standard documents at 1200dpi. Offset paper exit by the shifter function
Rotation copy	If there is paper of the same size as the document size, the image is rotated and printed even though the paper is set in a different direction. (In some cases, enlargement rotation may not be executed.)
2 in 1/4 in 1	Two pages or four pages of documents are copied on one page of paper. Division can be made with slid lines or dotted lines (by user setup). (The solid line width is 8 lines)
Edge erase	Images on the edges of the document are erased and copy is made. (Adjustable in the range of 0 – 20mm (0 – 1 inch).)
Center erase	The center image of the set document is erased and copy is made. (Adjustable in the range of 0 – 20mm (0 – 1 inch).)
Binding edge	Binding edge is provided on the left, right or the top of the set document.
Compression memory for electronic sort	32MB
* Memory read capacity	600dpi 32MB (Copy: 16MB, Print: 16MB) 90 sheets (Max. 1500 sheets) of A4 standard documents (Sharp A4 standard document Test Chart B (6%))
	1200dpi 22 sheets (Max. 726 sheets) of A4 standard documents (Sharp A4 standard document Test Chart B (6%))
Memory expansion	2 slots for DIMM memory, Max. 512MB x 2 slots + 32MB (Expandable up to 1056MB)

Note: The number of sheets for the columns marked with “\*” is calculated supposing that the same quantity is assigned to the ROPM memory and the copy expansion memory.

## 8. “Sharp Printer Language with Compression (SPLC)” Printer function

### A. Basic specification

Item	Detail
Print Speed	15ppm: 600dpi (including transfer from PC) 27ppm: ROPM (AR-M277/M276) 23ppm: ROPM (AR-M237/M236)
Resolution	600dpi
Smoothing	1200dpi x 600dpi
Toner Save Mode	Standard
Input tray	Multi Bypass tray Tray 1, Tray 2, Tray 3, Tray 4 (Depending on conditions of the machine and option installation.)
Duplex print	Standard
Finisher	Option
Printer driver	Standard
Manual (Online manual)	Standard
Platform	IBM PC/AT (Include compatible machine)

Item	Detail
Support OS (Printer Driver)	Windows 95/98/Me Windows NT 4.0 Workstation (SP5 or later) Windows 2000 Professional Windows XP Home/Professional Edition

## B. Printer driver specification

### (1) System

Machine	OS
IBM PC/AT (Include compatible machine)	Windows 95/98/Me
	Windows NT 4.0 Workstation (SP5 or later)
	Windows 2000 Professional
	Windows XP Home/Professional Edition

### (2) Printing function specification

	Function	Content
General	Copies	1-999
	Orientation	Portrait Landscape
	Collate	Collate Uncollate
	Document Style	1-Sided, 2-Sided (Book), 2-Sided (Tablet)
	N-up printing	2/4
	N-up Order	Z
	N-up Border	Yes/No
	User Setting	Yes
Paper Input	Paper Size	A3 / B4 / A4 / B5 / A5 / B6 / A6 / Ledger (11x17) / Legal (8.5 x 14) / Foolscap (8.5 x 13) / Letter (8.5 x 11) / Invoice (5.5 x 8.5) / Folio / Executive / COM-10 / DL / C5 / 8K / 16K
	Custom Paper Size	1 size
	Source Selection	<ul style="list-style-type: none"> <li>• Auto</li> <li>• Bypass (Auto)</li> <li>• Bypass (Manual)</li> <li>• Tray 1/2/3/4</li> </ul>
	Paper Type	Tray: Normal paper, letter head paper, recycle paper, colored paper Bypass: Normal paper, letter head paper, recycle paper, colored paper, thick paper, thin paper, label paper, OHP, postcard, envelope
	Transparency print	Yes / No
Paper Output	Output Tray Selection	<ul style="list-style-type: none"> <li>• Center Tray</li> <li>• Upper Tray</li> <li>• Finisher Offset tray</li> </ul>
	Staple	Yes / No
Graphic	Print Quality	Normal Draft Photo
	Smoothing	Yes / No
	Toner save	Yes / No
	Photo Enhancement	Yes / No
	Fit to Page	Yes / No
	2 Gradation print	Yes / No
	Image Adjustment	Brightness : 0 to 100 Contrast : 0 to 100

	Function	Content
Watermark	Watermark	(None) / TOP SECRET / CONFIDENTIAL / DRAFT / ORIGINAL / COPY
	User setting	Add / Update / Delete
	Position	Center X: ±50 Y : ±50
	Size	6 to 300
	Angle	±90
	Gray Scale	0 to 255
	Edit Font	Yes
	On first page only	Yes / No
Configuration Setting	Input Trays	Two / Three / Four trays
	Output Tray Options	None / Upper Tray / Staple Finisher
	Set Tray Status	Yes
	Version Information	Yes
Others	ROPMP	Yes / No

### (3) Print quality

Mode	Control	Content
Resolution/Print quality	600dpi (Fixed)	Print quality is selected from Normal*/Draft/Photo.
Smoothing	On*	Smoothing function is ON.
	Off	Smoothing function is OFF.
Toner Save Mode	On	Toner save function is ON.
	Off*	Toner save function is OFF.
Photo Enhancement	On	Photo enhancement function is ON.
	Off*	Photo enhancement function is OFF.
2 Gradation print	On	2-Gradation print function is ON.
	Off*	2-Gradation print function is OFF.

\* Default

## (5) Paper handling specifications

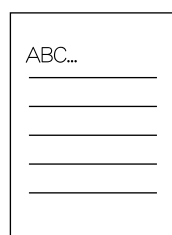
### a. Paper feed direction

Limitations on tray/functions for support paper

Paper name	Paper size	Paper feed tray					Paper exit tray			Function	
		Manual tray	Tray 1	Tray 2	Tray 3	Tray 4	Center tray	Upper tray	Offset tray	Staple	Fit page
A3	297 x 420 mm	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
A4	210 x 297 mm	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
A5	148 x 210 mm	Yes	Yes	N/A	N/A	N/A	Yes	Yes	N/A	N/A	Yes
A6	105 x 148 mm	Yes	N/A	N/A	N/A	N/A	Yes	N/A	N/A	N/A	Yes
B4	257 x 364 mm	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
B5	182 x 257 mm	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
B6	128 x 182 mm	Yes	N/A	N/A	N/A	N/A	Yes	Yes	N/A	N/A	Yes
Ledger	11 x 17 inch	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Letter	8.5 x 11 inch	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Legal	8.5 x 14 inch	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Executive	7.25 x 10.5 inch	Yes	N/A	N/A	N/A	N/A	Yes	Yes	N/A	N/A	Yes
Folio	8.3 x 13 inch	Yes	N/A	N/A	N/A	N/A	Yes	Yes	N/A	N/A	Yes
Invoice	5.5 x 8.5 inch	Yes	Yes	N/A	N/A	N/A	Yes	Yes	N/A	N/A	Yes
Foolscap	8.5 x 13 inch	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8K	270 x 390 mm	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes
16K	195 x 270 mm	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes
DL	110 x 220 mm	Yes	N/A	N/A	N/A	N/A	Yes	Yes	N/A	N/A	Yes
C5	162 x 229 mm	Yes	N/A	N/A	N/A	N/A	Yes	Yes	N/A	N/A	Yes
Com10	4.125 x 9.5 inch	Yes	N/A	N/A	N/A	N/A	Yes	Yes	N/A	N/A	Yes
Custom	W: 100 to 297 mm L: 148 to 431.8 mm	Yes	N/A	N/A	N/A	N/A	Yes	N/A	N/A	N/A	N/A

Setting direction toward paper feed port = Long side

Transfer direction



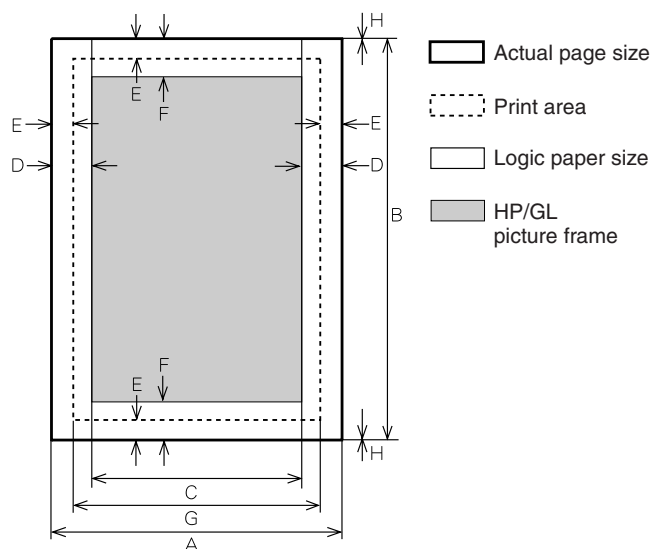
Setting direction toward paper feed port = Short side

Transfer direction

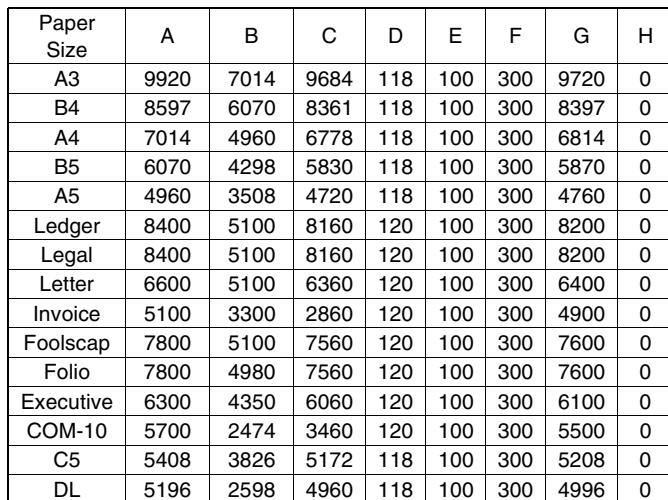


Paper Size	A	B	C	D	E	F	G	H
A3	7014	9920	6730	142	100	300	6814	0
B4	6070	8597	5786	142	100	300	5870	0
A4	4960	7014	4676	142	100	300	4760	0
B5	4298	6070	5770	142	100	300	4098	0
A5	3508	4960	3224	142	100	300	3308	0
Ledger	6600	10200	6300	150	100	300	6400	0
Legal	5100	8400	4800	150	100	300	4900	0
Letter	5100	6600	4800	150	100	300	4900	0
Invoice	3300	5100	3000	150	100	300	3100	0
Foolscap	5100	7800	4800	150	100	300	4900	0
Folio	4980	7800	4680	150	100	300	4780	0
Executive	4350	6300	4050	150	100	300	4150	0
COM-10	2474	5700	2174	150	100	300	2274	0
C5	3826	5408	3542	142	100	300	3626	0
DL	2598	5196	2314	142	100	300	2398	0

### (6) Print enable area







The set value is received from the digital copier, and data are made according to the set value.

Since the paper size sensor is not set, the digital copier cannot recognize the size and direction of paper which is actually inserted. Therefore, the left margin is set according to the paper size specified in the print data sent from the computer, and print process is performed. If the computer does not specify the paper size, or in the case of the custom size, the left margin is set according to the default paper size.

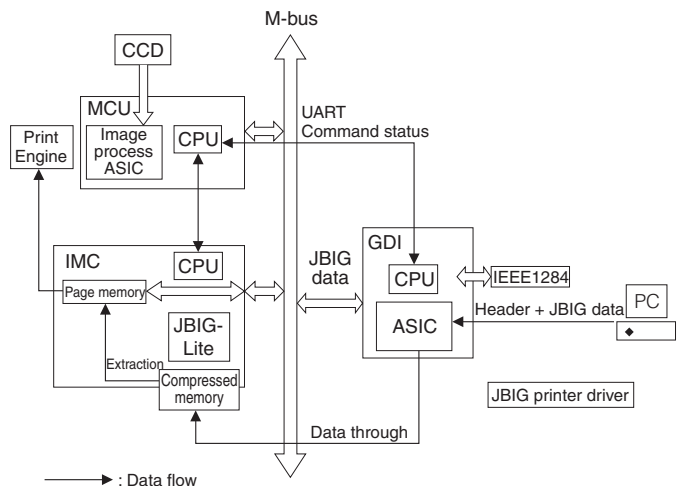
This machine employs the center reference system. Since the digital copier is not provided with the tray size detection feature, formatting and center distribution are performed not by the actual paper size but by the paper size specified by the computer.



Interface	IEEE 1284 (Parallel interface)
	USB Ver. 2.0

The GDI-PWB is provided with IEEE1284 I/F on the host side, and the 16-bit bi-directional data bus I/F and UART on the machine side. Transfer of image data with the IMC-PWB is performed with this 16-bit bi-directional data bus. Command status information with the engine is processed with UART.

JBIG compression data sent from the host are transferred to the IMC PWB, where the data are extracted to be VIDEO data, and sent through the MCU PWB to the LSU.



## [4] CONSUMABLE PARTS

### 1. List

#### A. SEC/LAG/SECL

No.	Item	Content	Life	Model name	Remarks
1	Toner CA (black) w/IC	Toner Vinyl bag	25K (×10) ×10	AR-270MT	Life setting by A4 (8.5"×11") 6% document MT=NT*10
2	Developer	Developer (Developer; Net weight 500g)	75K (×10) ×10	AR-271MD	MD=ND*10
3	Drum kit	Drum	75K ×1	AR-271DR	
4	Upper heat roller kit	Upper heat roller Fusing gear Upper heat roller bearing Upper cleaning pad Fusing separation pawl (upper)	150K ×1 ×1 ×2 ×1 ×4	AR-272UH	
5	Lower heat roller kit	Lower heat roller Fusing separation pawl (lower) Fusing busing (lower)	300K ×1 ×4 ×2	AR-272LH	
6	150K maintenance kit	Drum separation unit Transfer roller unit DV seal DV side sheet N DV side sheet N2 DV side mylar	150K ×2 ×1 ×1 ×1 ×1 ×2	AR-272KA1	
7	MC unit	MC unit	75K (×10) ×10	AR-270MC	
8	Cleaner blade	Cleaner blade	75K (×10) ×10	AR-270CB	
9	Drum frame unit	Drum frame unit	225K ×1	AR-272DU	* The life of the toner reception seat welded to the drum frame is 225K, and it can be used up to 3 times. (Supplied as a drum frame unit.) * Drum frame unit contains all the drum unit parts excluding Drum and Drum fixing plate.
10	Staple cartridge	Staple cartridge	3000 staples ×3	AR-SC1	For AR-FN5N (For 30 sheets staple)
11	Transfer roller unit	Transfer roller unit	150K ×1	AR-272TX	
12	Paper feed roller kit	Paper feed roller kit	100K ×1	AR-271IR	
13	Fusing unit	Fusing unit (120V heater lamp)	150K ×1	AR-272FU	

\* The other maintenance parts than the above are supplied as service parts.

#### B. SEEG/SUK/SCA/SCNZ/SEA/SEES/SEZ/SEIS/SEB/SEN/SEF/SMEF/Russia/Special country

No.	Item	Content	Life	Model name	Remarks
1	Toner CA (black) w/IC	Toner Vinyl bag	25K (×10) ×10	AR-270LT	Life setting by A4 (8.5"×11") 6% document LT=T*10
2	Developer	Developer (Developer; Net weight 500g)	75K (×10) ×10	AR-271LD	LD=DV*10
3	Drum kit	Drum	75K ×1	AR-271DM	
4	Upper heat roller kit	Upper heat roller Fusing gear Upper heat roller bearing Upper cleaning pad Fusing separation pawl (upper)	150K ×1 ×1 ×2 ×1 ×4	AR-272UH	
5	Lower heat roller kit	Lower heat roller Fusing separation pawl (lower) Fusing busing (lower)	300K ×1 ×4 ×2	AR-272LH	
6	150K PM kit	Drum separation unit Transfer roller unit DV seal DV side sheet N DV side sheet N2 DV side mylar	150K ×2 ×1 ×1 ×1 ×1 ×2	AR-272KA	
7	MC unit	MC unit	75K (×10) ×10	AR-270MC	
8	Cleaner blade	Cleaner blade	75K (×10) ×10	AR-270CB	
9	Drum frame unit	Drum frame unit	225K ×1	AR-272DU	* The life of the toner reception seat welded to the drum frame is 225K, and it can be used up to 3 times. (Supplied as a drum frame unit.) * Drum frame unit contains all the drum unit parts excluding Drum and Drum fixing plate.
10	Staple cartridge	Staple cartridge	3000 staples ×3	AR-SC1	For AR-FN5N (For 30 sheets staple)
11	Transfer roller unit	Transfer roller unit	150K ×1	AR-272TX	

\* The other maintenance parts than the above are supplied as service parts.

### C. STCL/SRH/SRS/SRSSC/SBI/Agent

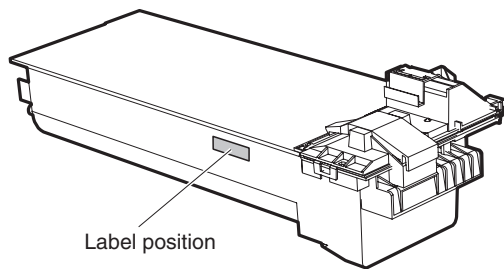
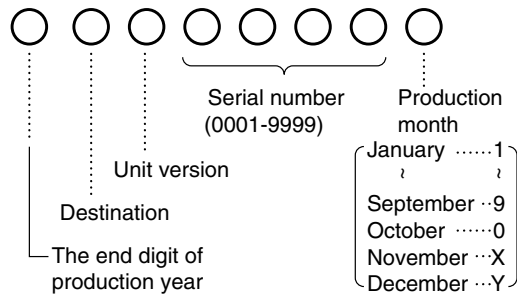
No.	Item	Content	Life	Model name	Remarks	
1	Toner CA (black) w/IC	Toner Vinyl bag	×10 ×10	25K (×10)	AR-270CT	Life setting by A4 (8.5"×11") 6% document CT=ST*10
2	Developer	Developer (Developer; Net weight 500g)	×10	75K (×10)	AR-271CD	CD=SD*10
3	Drum kit	Drum	×1	75K	AR-271DR	
4	Upper heat roller kit	Upper heat roller Fusing gear Upper heat roller bearing Upper cleaning pad Fusing separation pawl (upper)	×1 ×1 ×2 ×1 ×4	150K	AR-272UH	
5	Lower heat roller kit	Lower heat roller Fusing separation pawl (lower) Fusing busing (lower)	×1 ×4 ×2	300K	AR-272LH	
6	150K PM kit	Drum separation unit Transfer roller unit DV seal DV side sheet N DV side sheet N2 DV side mylar	×2 ×1 ×1 ×1 ×1 ×2	150K	AR-272KA	
7	MC unit	MC unit	×10	75K (×10)	AR-270MC	
8	Cleaner blade	Cleaner blade	×10	75K (×10)	AR-270CB	
9	Drum frame unit	Drum frame unit	×1	225K	AR-272DU	* The life of the toner reception seat welded to the drum frame is 225K, and it can be used up to 3 times. (Supplied as a drum frame unit.)  * Drum frame unit contains all the drum unit parts excluding Drum and Drum fixing plate.
10	Staple cartridge	Staple cartridge	×3	3000 staples ×3	AR-SC1	For AR-FN5N (For 30 sheets staple)

\* The other maintenance parts than the above are supplied as service parts.

## 2. Production number identification

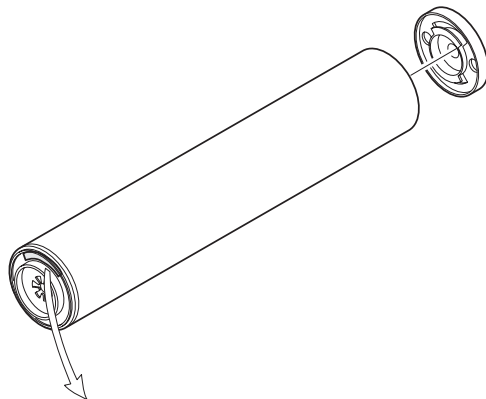
### <TD cartridge>

The label on the TD cartridge shows the date of production.



### <Drum>

The laser print indicates the date (year, month, day) of production.

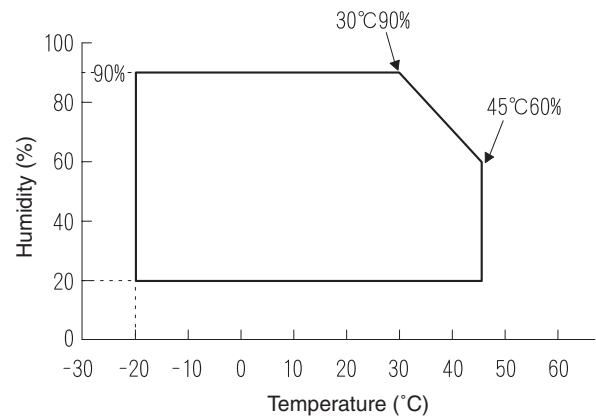


1	2	3
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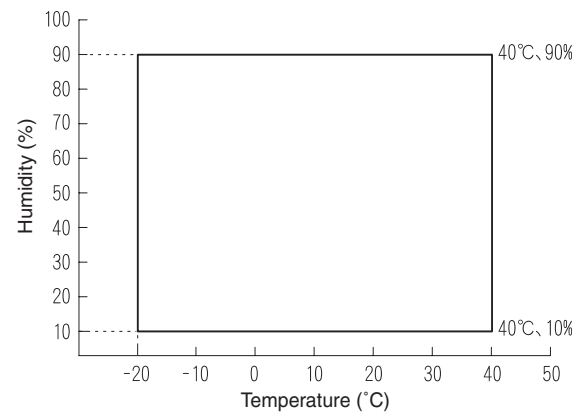
- 1 The last digit of the production year.
- 2 The production month.  
X stands for October, Y November, and Z December.
- 3 The production sub lot.

## 3. Environment conditions

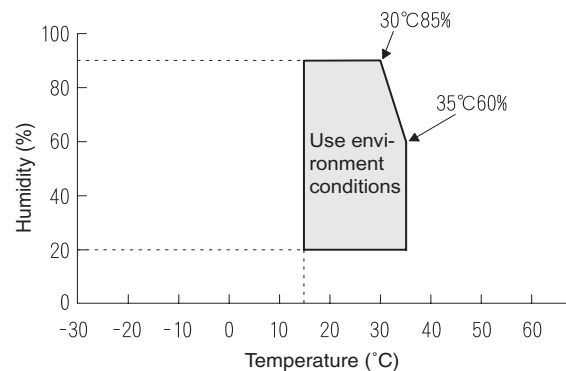
### A. Ambient conditions for transporting



### B. Ambient storage conditions (sealed)



### C. Operating ambient conditions



## 4. Life (packed conditions)

Photoconductor drum (36 months from the production month)

Developer, toner (24 months from the production month)

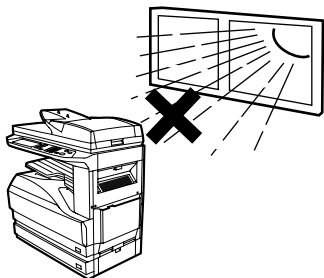
## [5] UNPACKING AND INSTALLATION

### 1. Installation

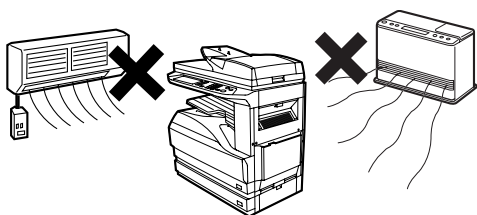
#### A. Environment

The performance of this machine is affected by the environment of the installing site. Avoid installation to the following places:

- Avoid installation in direct sunlight, otherwise the plastic parts may be deformed.



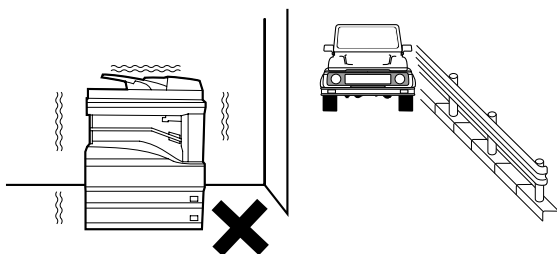
- Avoid installation in a place of high temperature, high humidity, low temperature or low humidity, otherwise paper may be dampened and frost may be generated in the machine to cause a paper jam and dirty copy.



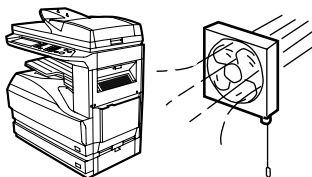
- Avoid installation in a dusty place, otherwise dust may enter the machine to cause dirty copy or machine troubles.



- Avoid installation to a place with much vibration, otherwise the machine may cause troubles.



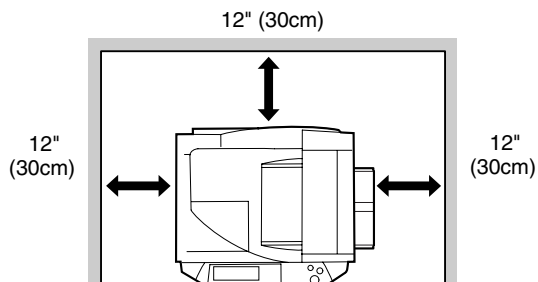
- Avoid installation to a place of poor ventilation.



- Avoid installation to a place where there is ammonium gas. Installation near a diazo-copier may lead to dirty copy.

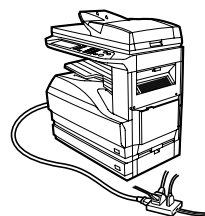


- Be sure to have enough space around the machine. Be sure to allow the required space around the machine for servicing and proper ventilation.

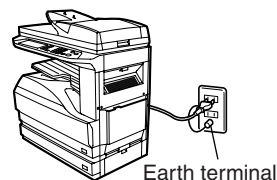


#### B. Power source

- Be sure to use only the power outlet (with the earth terminal) of 15A or more and 100V.
- Install the machine near the power outlet to facilitate disconnection of the power plug.
- If the power plug of this machine and other illuminating apparatus are connected to the same power outlet, the lamp may flicker. Use an exclusive power outlet for this machine without connecting another lamp together.
- Avoid complex wiring. Be careful not to damage, break, or process the power cord.

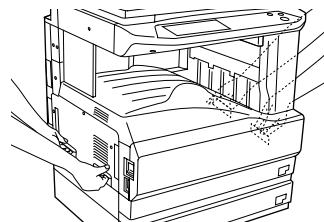


- Earth wire connection  
Be sure to connect the earth wire for protection against danger. If not, a leakage may cause a fire or an electric shock.



#### C. Transport

- When transporting the machine, use manpower of two persons to hold the grips on the both sides of the machine with both hands.



## D. Other precautions

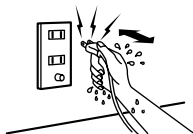
- If the machine produces smoke or bad smell, stop the operation of the machine.



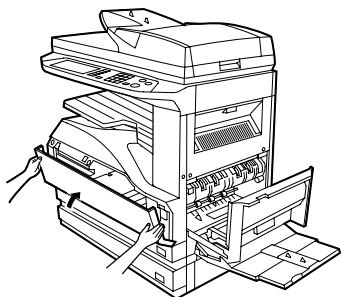
- Do not use flammable spray near the machine.
- Do not remove the cabinet of the machine.
- Do not put a receptacle with water in it or metal pieces, which may drop inside the machine, causing a trouble.



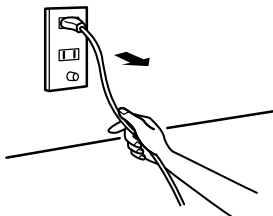
- When it thunders, turn off the power and disconnect the power plug from the power outlet to prevent against an electric shock or a fire caused by lighting damage.
- If a piece of metal or water enters the machine, turn off the power and disconnect the power plug from the power outlet.
- Do not touch the power plug with a wet hand.



- Do not remodel the machine.
- Be careful not to pinch your fingers when closing the front cover or the side cover and setting the paper feed tray to supply paper or process a paper jam.



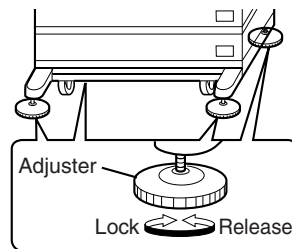
- When disconnecting the power plug from the power outlet, do not pull the cord.



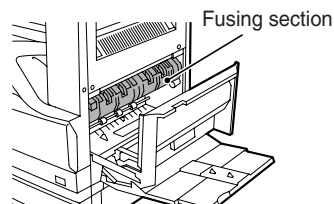
- Do not throw toner or the toner cartridge into a fire.
- Keep toner or the toner cartridge away from the children.

- When the exclusive table (option) is used, be sure to use the adjusters (4 pcs.) on the floor.

When it is required to move the machine for rearrangement of the office, etc., release the adjuster locks and move the machine.



- The fusing section is heated to a high temperature. When removing a paper jam, be careful not to touch the fusing section.

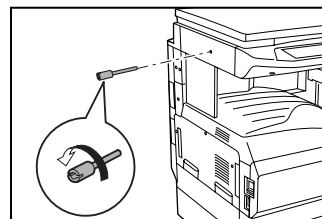


- When the machine is not used for a long time, disconnect the power plug from the power outlet for safety.
- When transporting the machine, turn off the power and disconnect the power plug from the power outlet. (Remove the earth wire after disconnecting the power plug from the power outlet.)

## 2. Removal of protective material and fixing screw

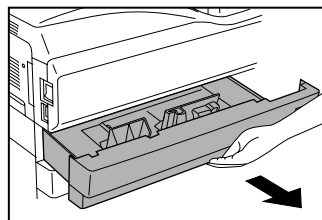
- 1) Remove all tapes, then open the document cover and remove the protective material of sheet shape.
- 2) Use a screwdriver to remove the fixing screw.

The fixing screw is required when transporting the machine. Keep it in the tray. (Refer to the later description.)

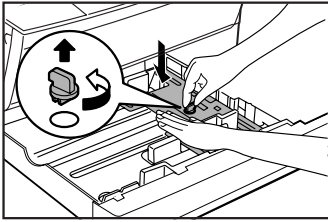


## 3. Removal and storage of fixing pin

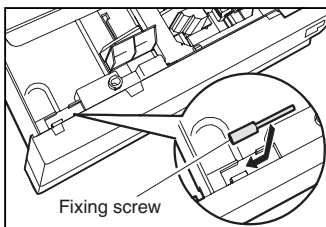
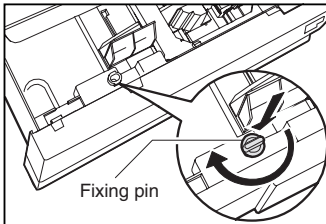
- 1) Lift the knob and gently pull out the tray.



- 2) Hold the paper pressure plate and turn the fixing pin in the arrow direction.



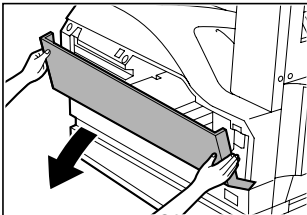
- 3) Store the removed fixing pin and the fixing screw which was removed in the above procedure, together in the specified storage place in the tray.



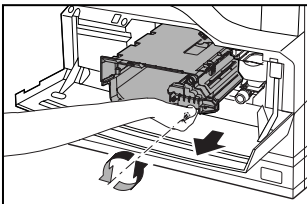
\* If power is turned on without removing the fixing pin, it will be difficult to pull out the tray.

## 4. Developer cartridge installation

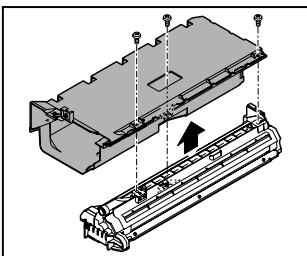
- 1) Hold the both sides of the front cover, and pull down to open it.



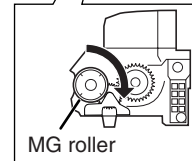
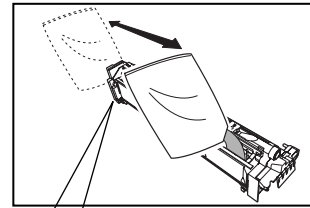
- 2) Loosen the blue screw and pull out the developing cartridge.



- 3) Remove the developer tank from the developer cartridge.



- 4) Rotate the MG roller in the arrow direction and supply developer evenly into the developing unit.



\* Shake the developer bag enough before opening it.

\* Check that the DV seal is free from developer. If developer is attached to the DV seal, clean and remove it.

- 5) Attach the developer tank to the developer cartridge.

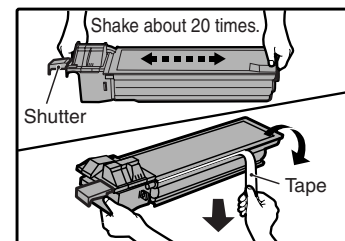
After supplying developer into the developer cartridge, do not tilt or shake the developer cartridge.

- 6) Attach the developer cartridge to the copier, and fix it with the screw.

Note: When replacing the OPC drum with a new one, be sure to clear the drum count.

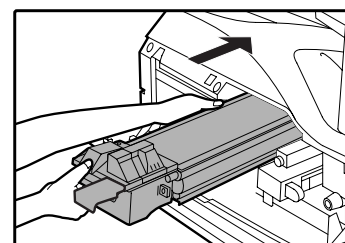
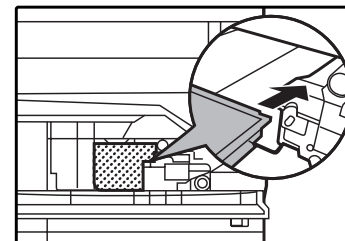
## 5. Toner cartridge installation

- 1) Remove the toner cartridge from the bag, shake it about 20 times horizontally, and remove the tape.



\* When holding the toner cartridge, do not touch the shutter section, but hold the grips. Do not remove the tape before shaking the cartridge.

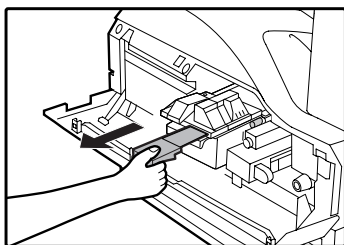
- 2) Press the lock release lever, and insert the unit completely into the copier along the guide groove. Then fix the blue screw and the locking screw.



\* Dirt or dust must be removed from the toner cartridge before installing.

- Remove the tape from the shutter, and remove the shutter from the toner cartridge.

Dispose the removed shutter.



## 6. Toner density sensor level adjustment

- Open the cover with the power OFF.
- Power ON (The mechanism cannot be initialized because the cover is open.)
- Install the developing unit with new developer in it.
- Enter SIM 25-2.  
(# → \* → C → \* → 25 → START → 2 → START)
- Close the cover immediately before starting the operation.
- Press the [START] key to start.

After completion of the adjustment, be sure to cancel the simulation.

Note: When replacing developer with new one, be sure to clear the developer counter.

## 7. Tray paper size setting

When the tray paper size is changed, set the tray paper size in the following procedure.

During temporary halt due to paper empty or a paper jam or during interruption copy, the paper size setting cannot be made.

During FAX data output (when the FAX function is provided) or during printing (when the printing function is provided), the paper size setting cannot be made even in the copy mode.

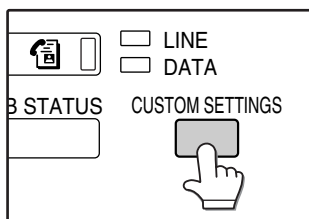
Note: A5 (5 1/2" x 8 1/2") size paper can be set only to the first tray and the manual feed tray.

B5 size paper cannot be set to the second tray. (B5R size paper can be set.)

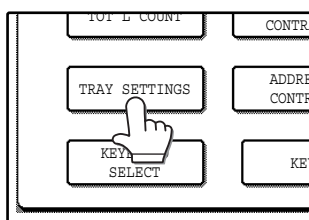
### A. Trays 1 – 4

- Set paper on the tray.
- Press the [CUSTOM SETTINGS] key.

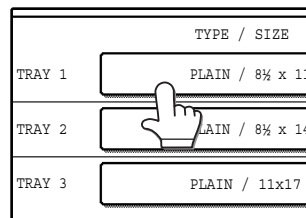
The custom settings menu screen will appear.



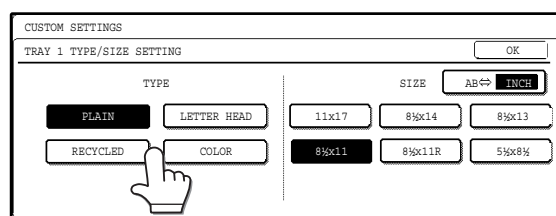
- Touch the [TRAY SETTINGS] key.
- The tray settings screen will appear.



- Select the tray in which you loaded paper.  
If the desired tray does not appear in the display, use the [↑] key or [↓] key to scroll until it appears.



- Select the size and type of paper that is loaded in the tray.  
The currently selected paper type will be highlighted.
- To change the paper type selection, touch the appropriate type key.
  - To change the paper size selection, touch the appropriate size key.
  - To change the displayed size selections to AB sizes, touch [AB ↔ INCH].

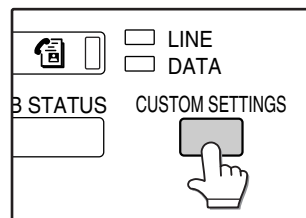


- Touch the [OK] key.
- A message appears prompting you to check the paper in the tray. Check the paper and then touch the [OK] key.  
You will return to the tray settings screen.

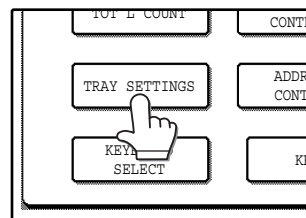
### B. Manual feed tray

- Set paper on the tray.
- Press the [CUSTOM SETTINGS] key.

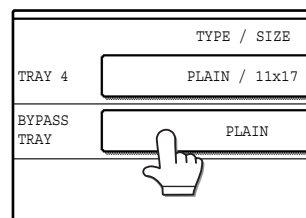
The custom settings menu screen will appear.



- Touch the [TRAY SETTINGS] key.  
The tray settings screen will appear.

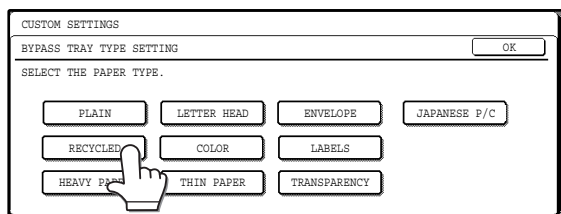


- Touch the [BYPASS TRAY] key.





- 5) Select the type of paper that is loaded in the tray.  
Touch the appropriate paper type key.

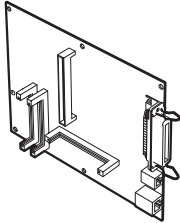





- 6) Touch the [OK] key.  
You will return to the tray settings screen.

## 8. Installation of options

### A. AR-P17

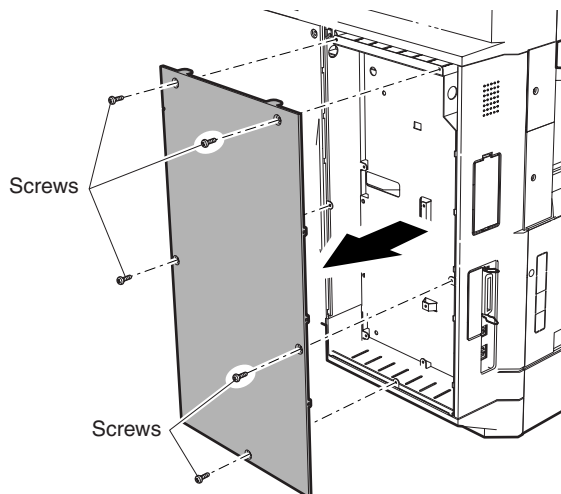
#### (1) Parts included

		CD-ROM: 1 pc. Operation manual Installation caution sheet
PCL PWB: 1 pc.		
		
M3 screws: 3 pcs. (For installation of the parallel and the USB connectors)	M3 screws with spring washer: 6 pcs. (For installation of the PCL PWB)	Support post: 2 pcs.

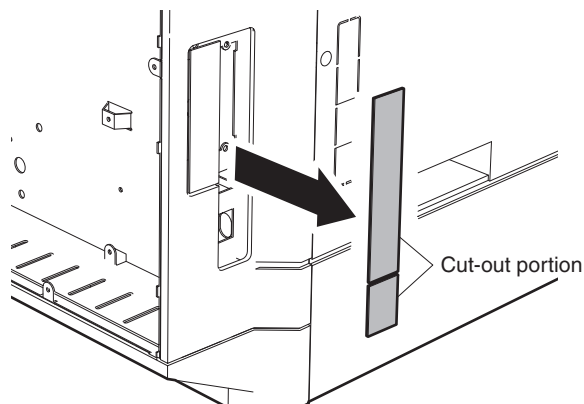
#### (2) Installation procedure

Turn off the main switch of the copier and then remove the power plug of the copier from the outlet.

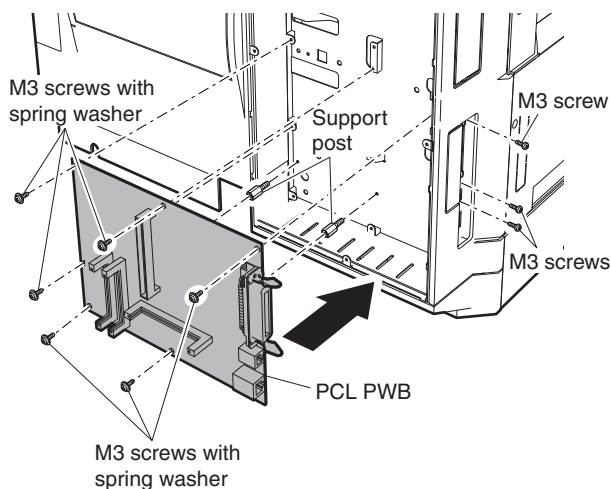
- 1) Remove the shielding plate.  
Remove five screws and remove the shielding plate.



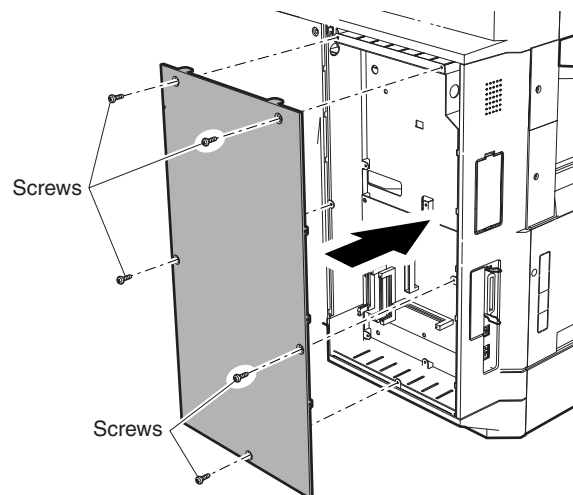
- 2) Cut and remove the cut-out portion from the left rear cabinet.  
Cut and remove the cut-out portion from the left rear cabinet using a tool such as nippers. (Be careful about the direction of the tool so that the cut surface is flat.)



- 3) Attach the PCL PWB unit.  
Attach the support post to the mounting plate of machine options. Then connect the PCL PWB connector to the mother board connector and fit the PCL PWB with the six screws with M3 spring washer (packed with the unit).  
Then, attach the parallel and USB connector portion using the supplied three screws.



- 4) Attach the shielding plate.  
Attach the shielding plate using five screws.



**Insert the power plug of the copier to the outlet and turn on the main switch. Then, carry out the following procedure.**

5) Check for the PCL PWB.

Press the PRINT key on the operation panel to check to see if the copier enters the print mode.

6) Check for the language.

Check for the language setting (26-22) following the procedure described in the service manual (section of simulation).

7) Check for printing.

For installation of printer drivers on a computer, see the supplied operation manual.

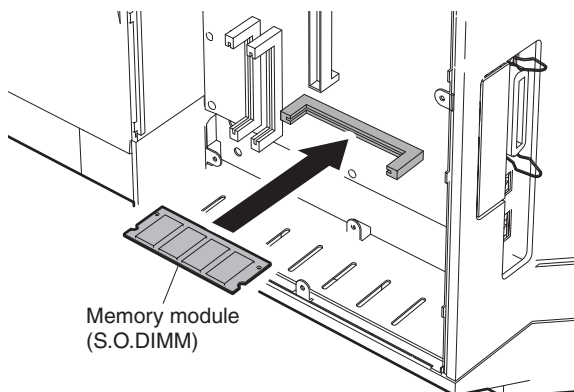
Then, connect a parallel cable to the computer and execute printing to check to see if printing can be executed properly.

### (3) Mounting of additional memory

(After mounting it, Installation proceed to step 4.)

Insert the memory module until it clicks.

The memory module is lock when it is inserted. However, be sure to check that the module slit is engaged with the connector rib when it is inserted.



## B. AR-PK1

### (1) Parts included

CD-ROM: 1\*  
License agreement  
Installation caution sheet

\*NOTE: Do not use the CD-ROM packed in AR-PK1, but use the CD-ROM packed together with the AR-P17 for setting the PS driver.

### (2) Installation procedure

To enable the PS3, the product key must be acquired.  
(For the method of acquiring the product key, contact the SHARP authorized dealer.)

1) Check that AR-P17 operates normally.

- Turn on the power and wait until warming up is complete.
- Press the PRINT key on the operation panel of the main unit.
- If the LCD in the operation panel of the main unit switches to the print mode normally, AR-P17 is operating normally.
- If it is not operating normally, follow the AR-P17 Installation Manual to check and modify the system configuration settings and check the operation.

2) Enable the PS3.

To enable the system configuration, use the keys on the main unit to set the mode.

Enter the product key with the key operator program. (Refer to the Operation Manual of Key Operator Program.)

Setting of the product key is complete. To update the system, press the CA key to exit the setting mode.

3) Check the PS3.

Make the following sequence of selections on the control panel.

- Press Special Functions , highlight Configuration and press OK.
- Use the up and down keys to highlight Test print menu and press OK.
- Use the up/down keys to highlight Configuration page and press OK.

A configuration page will be printed.

Check that the option memory capacity is 128 MB or more.

Check that the PS3 has been installed.

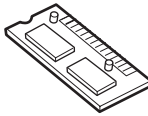
Please keep below important information.  
This information will use for other products.

APPLICATION NUMBER	
MACHINE SERIAL NUMBER	
PRODUCT KEY	

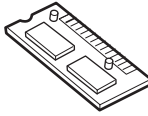
## C. AR-PF1/PF2

### (1) Parts included

#### AR-PF1

	CD-ROM: 1 pc. Operation manual Installation caution sheet
Bar code board: 1 pc.	

#### AR-PF2

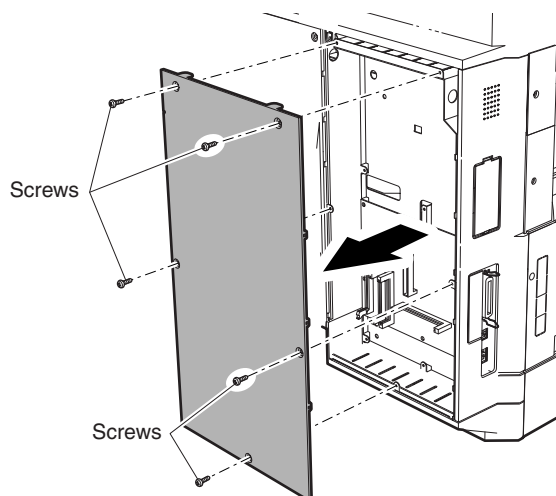
	Operation manual Installation caution sheet
Flash ROM board: 1 pc.	

### (2) Installation

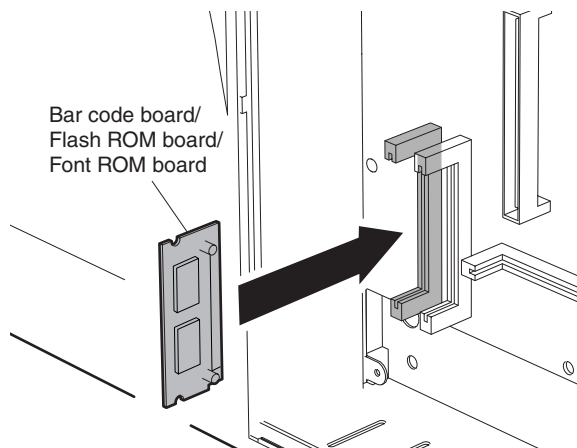
**Turn off the main switch of the copier and then remove the power plug of the copier from the outlet.**

1) Remove the shielding plate.

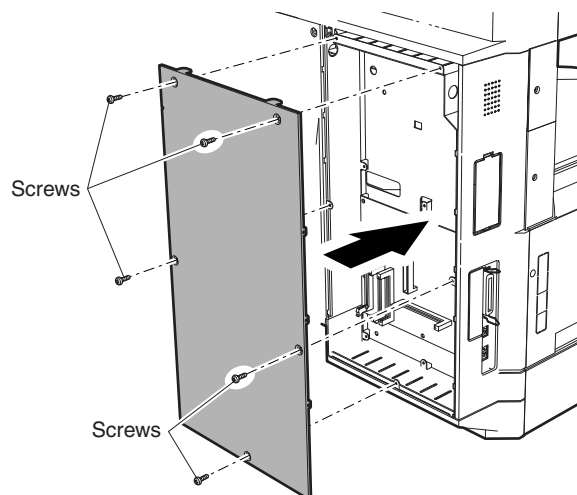
Remove five screws and remove the shielding plate.



- 2) Attach the bar code board/flash ROM.  
Attach the bar code board/flash ROM board to CN7 of the printer board.



- 3) Attach the shielding plate.  
Attach the shielding plate using the five screws.



**Insert the power plug of the copier to the outlet and turn on the main switch. Then, carry out the following procedure.**

- 4) Check the bar codes. (AR-PF1 only)  
Use the operation keys on the operation panel to print the PCL font list from the test page printing.  
Check that the optional font list is printed at the end.

### (3) Font list

Font No.	Font name	Font No.	Font name
1	Code128TT-Regular	15	OCR-A
2	Code128-NarrowTT-Regular	16	OCR-B
3	Code128-WideTT-Regular	17	OCR-B-C39-Regular
4	Code39HalfInch-Regular	18	Upc-Half
5	Code39OneInch-Regular	19	Upc-HalfBars
6	Code39QuarterInch-Regular	20	Upc-HalfMusic
7	Code39SmallHigh-Regular	21	Upc-HalfNarrow
8	Code39Slim-Regular	22	Upc-HalfThin
9	Code39SmallLow-Regular	23	Upc-Tall-Regular
10	Code39SmallMedium-Regular	24	Upc-TallBarsThin-regular
11	Code39Wide-Regular	25	Upc-TallMusicThin-Regular
12	Codabar-Regular	26	Upc-TallNarrow-Regular
13	Interleaved2of5-Regular	27	Upc-TallThin-regular
14	Interleaved2of5-Thin-Regular	28	ZipCodeBarcode-Regular

### (4) Check when installing the AR-PF2

Check can be made by print out of the printer setting list.

The expansion font item in the printer setting list is changed from "uninstalled" to "download font."

### D. AR-NC5J

#### (1) Connection to a network

To connect the AR-NC5J to a network, the following items are required.

- For connection in the 100BASE-TX environment, a hub conforming to 100BASE-TX and a shield-type, twisted-pair cable (Category 5) are required.

Hub	Shield-type, twisted-pair cable

- 1) Check that the printer power is off, and connect the shield-type, twisted-pair cable to the 10/100BASE connector of the AR-NC5J.
- 2) Connect the other end of the cable to the hub.
- 3) Turn on the printer power, and check that the printer operates normally.

#### (2) Parts included

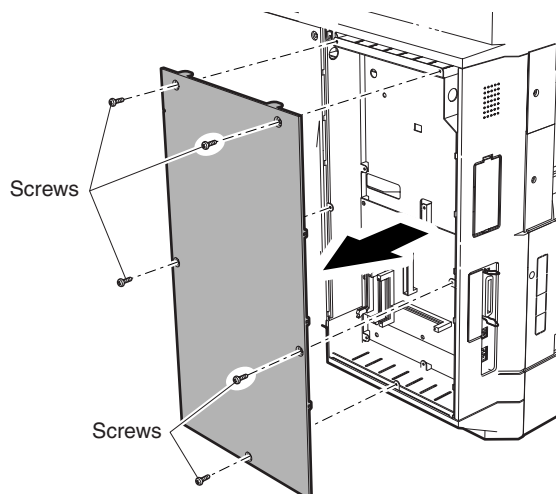
Print server card: 1 pc.	Screws (silver) M3 x 8: 2 pcs.	Spacers: 2 pcs. (only the one is used)
CD-ROM: 1 pc.	Operation manual	Installation caution sheet

#### (3) Installation procedure

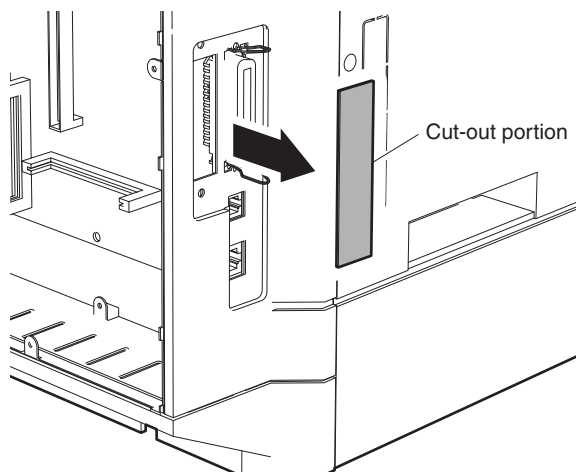
In this case, no spacer is used in the packed items of the AR-NC5J.

**Turn off the main switch of the copier and then remove the power plug of the copier from the outlet.**

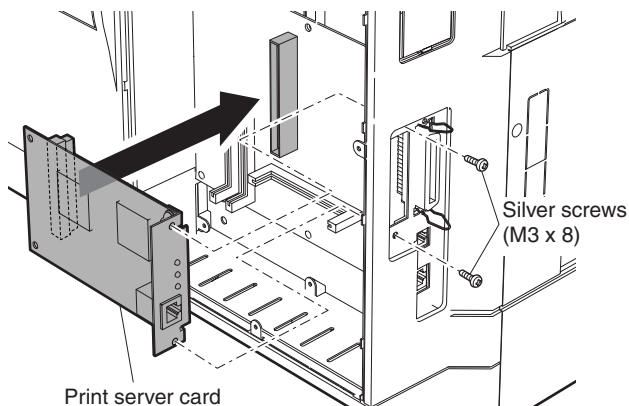
- 1) Remove the shielding plate.  
Remove five screws and remove the shielding plate.



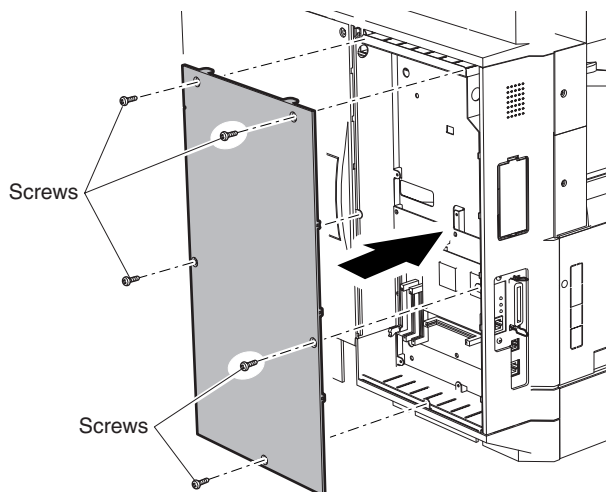
- 2) Cut and remove the cut-out portion from the left rear cabinet.  
Cut and remove the cut-out portion from the left rear cabinet using a tool such as nippers. (Be careful about the direction of the tool so that the cut surface is flat.)



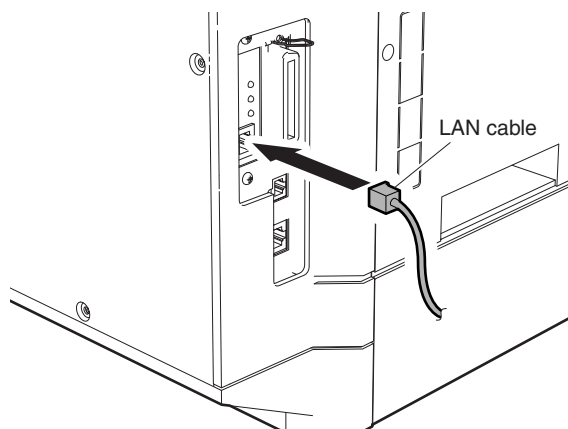
- 3) Attach the print server card.  
Align the connector positions, connect the print server card, and then secure the card to the option mounting plate in the main unit using supplied two silver screws (M3 x 8).



- 4) Reattach the shielding plate.  
Reattach the shielding plate using five screws.



- 5) Connect the cable to the control PWB.  
Connect a LAN cable to the connector of the print server card.



**Insert the power plug of the copier to the outlet and turn on the main switch. Then, carry out the following procedure.**

- 6) Check for the print server card.  
Use the keys on the operation panel to print a configuration page.  
Check that the network interface card has been installed.
- 7) Check for printing.  
Perform setup of the environmental variables.  
(For installation of printer drivers on a computer and network settings (IP address input), see the supplied operation manual.)  
Execute printing to check to see if printing can be executed properly.

## E. AR-NS2

### (1) Packed items

This network scanner kit includes the following items in the package.

- CD-ROM (Network Scanner Tool and Sharpdesk, Installer, Sharp TWAIN driver, etc.)
- Installation caution sheet and Operation Manual (License numbers of 10 user clients of Sharpdesk are specified.)

### (2) Installation procedure

To use the scanner expansion kit, a S.O.DIMM memory module (128 MB or more) is needed.

If no memory is added, an S.O.DIMM module must be mounted on PCL PWB.

For the mounting method and the memory capacity, see below.

To enable the scanner function, the product key must be acquired. (For the method of acquiring the product key, contact the SHARP authorized dealer.)

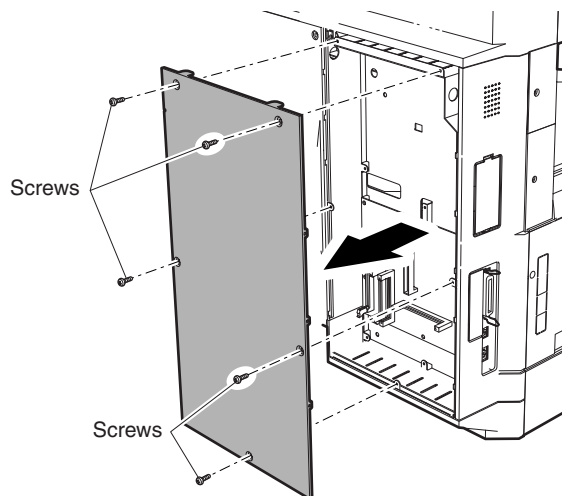
- 1) Check the capacity of the Printer PWB memory.  
Use the keys of the copier to print the configuration page. (For details, see the operation manual.)  
Check that the capacity of the optional memory is 128 MB or more.
- 2) Enable the network scanner feature.  
To enable the system configuration, use the keys on the copier to set the mode.  
Enter the product key with the key operator program. (Refer to the Operation Manual of Key Operator Program.)  
Setting of the product key is completed. Press the [EXIT] key to update the system and exit the setting mode.

### (3) Mounting the additional memory

Turn off the main switch of the copier and then remove the power plug of the copier from the outlet.

- 1) Remove the shielding plate.

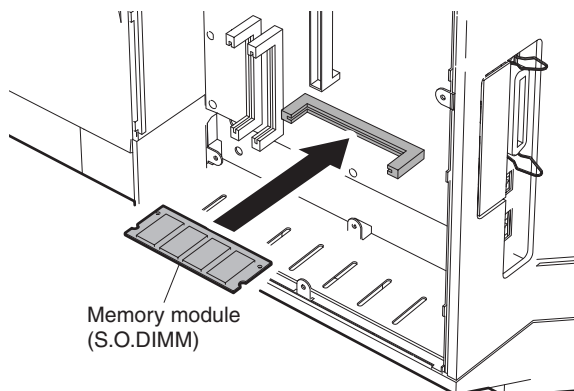
Remove the five screws and remove the shielding plate.



- 2) Mount the memory module.

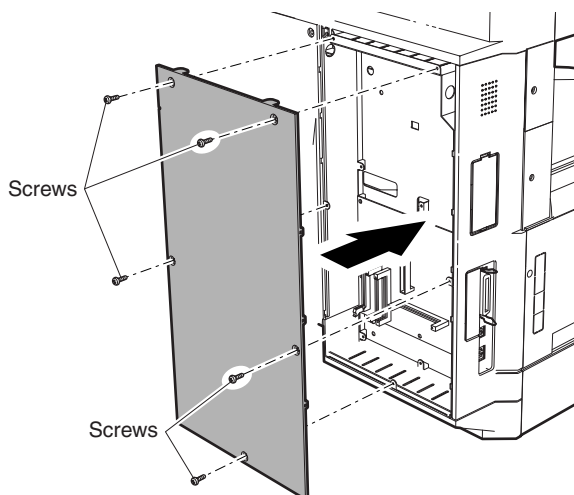
Insert the memory module until it clicks.

The memory module is lock when it is inserted. However, be sure to check that the module slit is engaged with the connector rib when it is inserted.



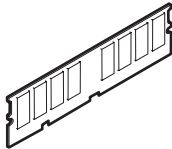
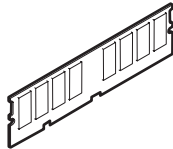
- 3) Reattach the shielding plate.

Reattach the shielding plate using the five screws.



## F. AR-SM5/SM6

### (1) Parts included

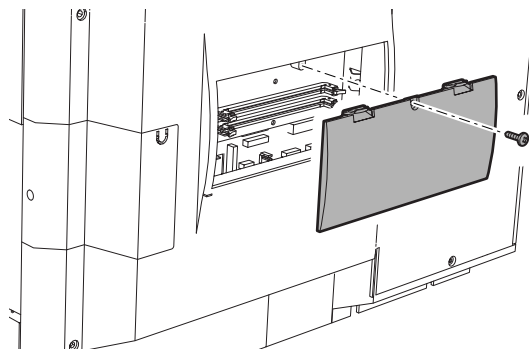
AR-SM5	AR-SM6
	
256MB SDRAM memory module (168 pin DIMM): 1 pc. Installation caution sheet	512MB SDRAM memory module (168 pin DIMM): 1 pc. Installation caution sheet

### (2) Installation procedure

Turn off the main switch of the copier and then remove the power plug of the copier from the outlet.

- 1) Remove the shielding plate.

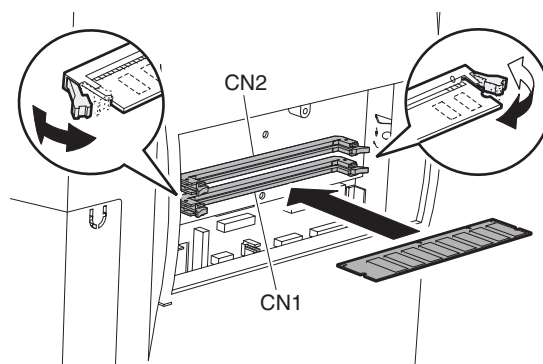
Remove the screw and remove the cabinet.



- 2) Attach the SDRAM memory module.

Attach the SDRAM memory module to CN1 and CN2 of the IMC board.

When only one SDRAM memory module is used, attach it to CN1.

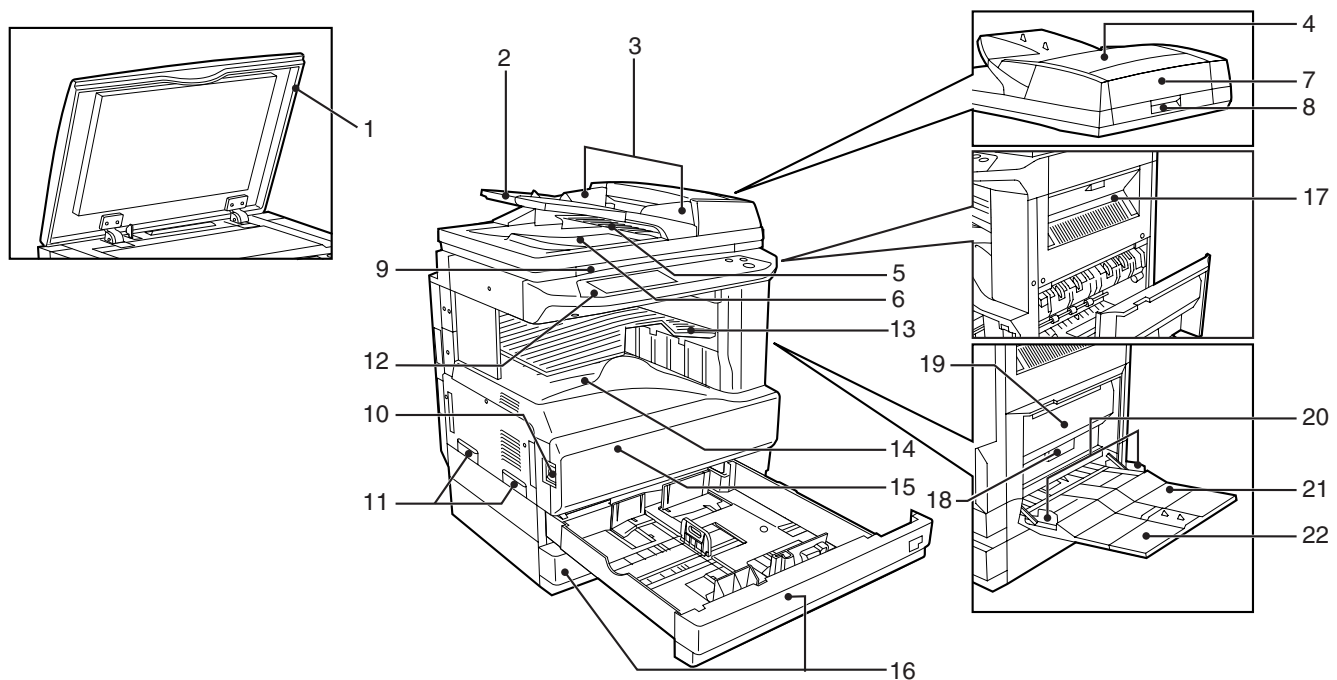




## [6] EXTERNAL VIEW AND INTERNAL STRUCTURE

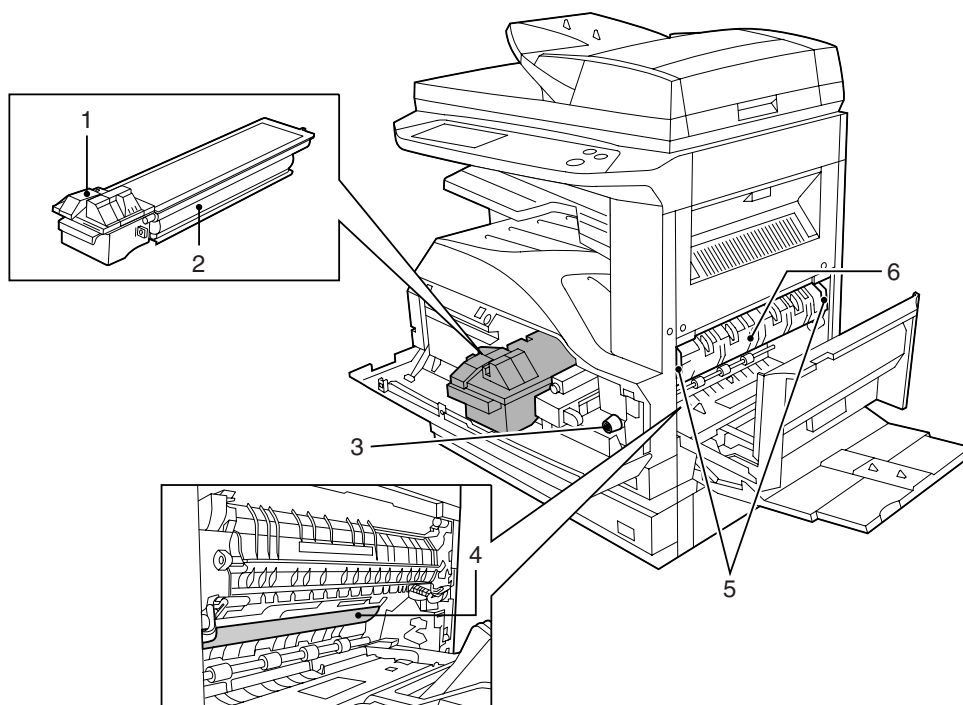
### 1. Name and function of each section

#### A. External view



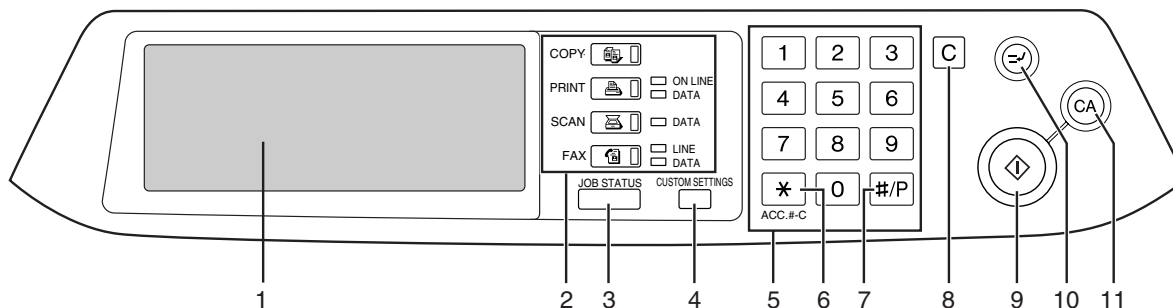
No.	Name	Function/Operation	Note
1	Platen cover (optional)	Presses a document.	Optional (AR-M236/M276) When the reversing single pass feeder installed. (AR-M237/M277: Standard)
2	Document feeder tray	Place the original(s) that you wish to scan face up here.	
3	Original guides	Adjust to the size of the originals.	
4	Document feeder cover	Open to remove misfed originals.	
5	Reversing tray	Pull out to remove misfed originals.	
6	Exit area	Originals exit the machine here after copying.	
7	Document transport cover	Open to remove misfed originals.	
8	Document transport cover knob	Pull to open the document transport cover.	
9	Document glass	Place an original that you wish to scan face down here.	
10	Power switch	Press to turn the machine power on and off.	
11	Handles	Use to move the machine.	
12	Operation panel	Contains operation keys and the touch panel.	
13	Job separator tray (optional)	Print jobs and received faxes are delivered to this tray.	When the job separator tray installed.
14	Center tray	Finished copies are delivered to the center tray.	
15	Front cover	Open to remove paper misfeeds and perform machine maintenance.	
16	Paper trays	Each tray holds 500 sheets of copy paper.	
17	Upper right side cover	Open to remove misfeeds when an optional job separator tray kit or a optional finisher is installed.	
18	Side cover	Open to remove misfeeds.	
19	Side cover handle	Pull to open the side cover.	
20	Bypass tray paper guides	Adjust to the width of the paper.	
21	Bypass tray	Regular paper and special paper (such as transparency film) can be fed from the bypass tray.	
22	Bypass tray extension	Pull out the bypass tray extension before placing paper in the bypass tray.	

## B. Internal structure



No.	Name	Function/Operation
1	Toner cartridge lock release lever	Use to unlock the toner cartridge.
2	Toner cartridge	Contains toner.
3	Roller rotating knob	Turn to remove misfed paper.
4	Photoconductive drum	Copy images are formed on the photoconductive drum.
5	Fusing unit release levers	To remove a paper misfeed in the fusing unit, push up on these levers and remove the paper.
6	Fusing unit paper guide	Open to remove misfed paper.

## C. Operation panel



No.	Name	Function/Operation	Note
1	Touch panel	The machine status, messages and touch keys are displayed on the panel. The display will show the status of printing, copying or network scanning according to the mode that is selected.	
2	Mode select keys and indicators	Use to change modes and the corresponding display on the touch panel.	
	[COPY] key	Press to select copy mode.	
	[PRINT] key/ONLINE indicator/ DATA indicator	[PRINT] key: Press to select print mode. • ONLINE indicator: Print jobs can be received when this indicator is lit. • DATA indicator: A print job is in memory. The indicator lights steadily while the job is held in memory, and blinks while the job is printed.	
	[SCAN] key/DATA indicator	[SCAN] key: Press to select network scan mode when the network scanner option is installed. • DATA indicator: Lights steadily or blinks while a scanned image is being sent.	When the network scanner option is installed.
3	[FAX] key/LINE indicator/ DATA indicator	[FAX] key: Press to select fax mode when the fax function is installed. • LINE indicator: This lights up while faxes are being sent or received. • DATA indicator: Blinks when a fax has been received to memory and lights steadily when a fax is waiting in memory for transmission.	When the fax function is installed.
	[JOB STATUS] key	Press to display the current job status.	

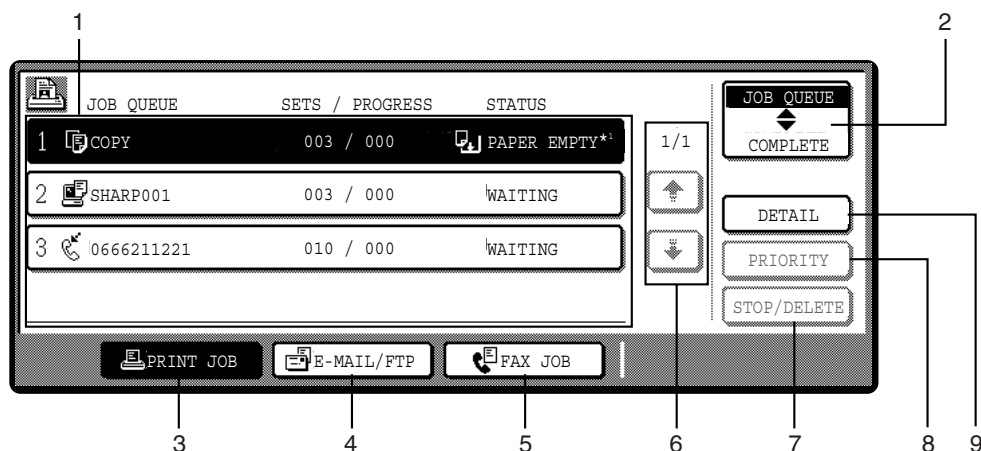
No.	Name	Function/Operation	Note
4	[CUSTOM SETTINGS] key	Use to adjust various settings of the machine including the contrast of the touch panel and key operator programs.	
5	Numeric keys	Use to enter numeric values for various settings.	
6	[ACC.#-C] key	When auditing mode is enabled, press this key after finishing a job to return the machine to account number entry standby.	
7	[#/P] key	Use this key to execute a job program in copy mode. The key is also used to dial in fax mode.	
8	[CLEAR] key	Press to clear a copy number setting or cancel a job.	
9	[START] key	Press in copy mode, scanner mode, or fax mode to begin copying, network scanning, or faxing.	
10	[INTERRUPT] key	Use to perform an interrupt copy job.	
11	[CLEAR ALL] key	Resets the settings to the initial settings.	

#### D. Job status screen

This screen appears when the [JOB STATUS] key on the operation panel is pressed.

A job list showing the current job and the stored jobs or a list showing completed jobs can be displayed.

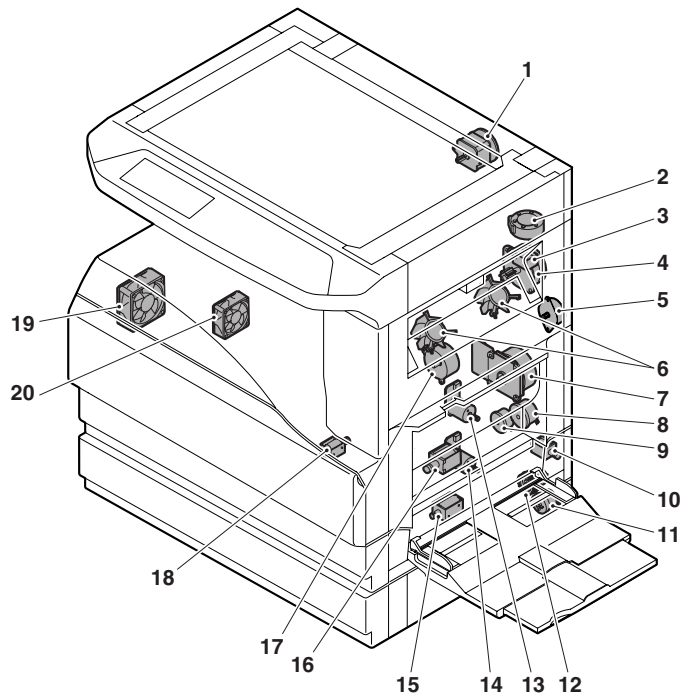
The contents of jobs can be viewed and jobs can be deleted from the queue. The following screen shows the job queue for print jobs.



No.	Name	Function/Operation	Note
1	Job list	Shows stored jobs and the job currently being executed. Touch one of keys 3 to 5 in the above illustration to select the type of job. The icon next to each job name indicates the mode of the job as follows: <div> <div>Copy mode</div> <div>Printer mode</div> <div>Network scanner mode</div> <div>Fax mode (Send jobs)</div> <div>Fax mode (Receive jobs)</div> </div> The jobs in the job list appear in the form of keys. To give priority to a job or pause or delete a job, touch the key of the job and then use the key described in 7 or 8.	* 1 : "PAPER EMPTY" in the job status display "PAPER EMPTY" in the job status display indicates that the machine is out of the specified size of paper. Add the specified size of paper. If the specified size of paper is not available and you are in printer mode, another size of paper can be loaded in the bypass tray to allow printing to take place.
2	Mode switching keys	Use to select the job list mode: "JOB QUEUE" (Stored/currently executing jobs) or "COMPLETE" (Finished jobs). "JOB QUEUE": Shows jobs that have been stored and the job that is currently being executed. "COMPLETE": Shows the jobs that have been finished. Note that copy jobs do not appear in this list (print job only).	
3	[PRINT JOB] key	Use to view the list of output jobs for all modes (print, copy, and fax).	
4	[E-MAIL/FTP] key	Displays a network scanner job.	When the network scanner function is installed.
5	[FAX JOB] key	This displays stored fax jobs and the fax job currently being executed.	When the fax function is installed.
6	Display switching keys	Use to change the page of the displayed job list.	
7	[STOP/DELETE] key	Use to pause or delete a job currently being executed, or to delete a stored job. Copy jobs and received faxes cannot be paused or deleted with this key. Copy jobs can be canceled by pressing the [CLEAR] key or [CLEAR ALL] key.	
8	[PRIORITY] key	Select a reserved job in the [Reserve/Execution] job list and touch this key, and the selected job will be executed by interrupting the current execution of the other job.	
9	[DETAIL] key	Shows information on the selected job. This cannot be used for a received fax and copy.	

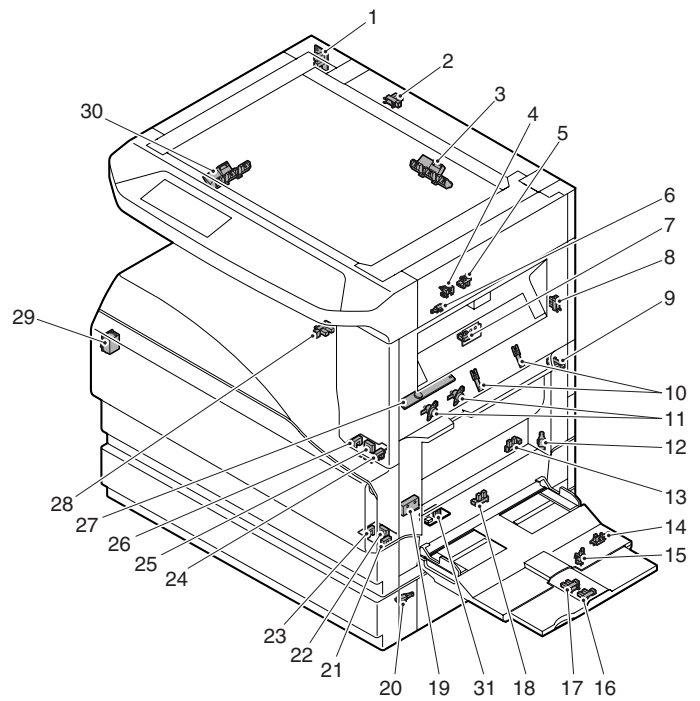


## E. Motor, Solenoid, Clutch



No.	Name	Code	Function and operation
1	Mirror motor	MIRM	Optical mirror base drive
2	Shifter motor	SFTM	Shifter drive
3	Paper exit gate switching solenoid	OGS	Paper exit gate switcher
4	Duplex motor	DPXM	Duplex paper switching and exit motor
5	DUP-2 motor		Reverse pass for paper transport
6	Cooling fan	VFM	Cools the inside of the unit.
7	Main motor	MM	Main drive
8	PS clutch	RRC	Main unit paper feed
9	Paper feed clutch	CPFS1	Paper feed roller drive
10	Manual paper feed solenoid	MPFS	Manual paper feed solenoid
11	Paper feed transfer clutch	TRC2	Paper feed transfer clutch
12	2nd cassette paper feed clutch	CPFS2	
13	Cassette lift-up motor	LUM1	Cassette paper lift-up
14	Cassette lift-up motor	LUM2	Cassette paper lift-up
15	2nd cassette paper feed solenoid	CPFC2	Solenoid for the paper feed from the cassette
16	Paper feed solenoid	CPFC1	Solenoid for the paper feed from the cassette
17	Toner motor	TM	Toner supply
18	Separation pawl solenoid	PSPS	Separation pawl operation solenoid
19	Exhaust fan motor	DCFM	Cools the inside of the unit.
20	Intake fan motor	DCFM2	

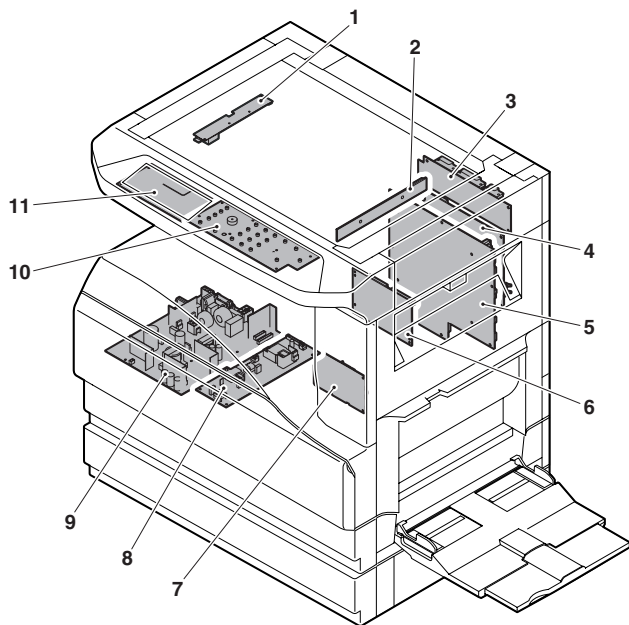
## F. Sensor



No.	Name	Code	Function and operation
1	Mirror home position sensor	MHPS	Mirror (scanner) home position detection
2	Document cover sensor	OCSW	Document cover open/close detection
3	Document size sensor	DSIN3	Document size detection (Inch series: PD3, 4) (AB series: PD4, 5)
4	2nd paper exit sensor	POD2	2nd paper exit detection
5	2nd paper exit full detection sensor	TOPF	2nd paper exit section full detection
6	Right cabinet door switch	DSWR0	Right cabinet door open/close detection
7	1st paper exit sensor	POD1	1st paper exit detection
8	Shifter home position sensor	SFTHP	Shifter home position sensor detection
9	Paper exit sensor (DUP side)	PPD2	Paper exit detection
10	Thermistor		Fusing temperature detection
11	Thermostat		Abnormal high temperature detection in the fusing section
12	1st cassette (paper tray) detection	CD1	1st cassette (paper tray) empty detection
13	Manual feed paper entry sensor	PPD1L	Sensor of paper entry from the manual paper feed tray, the 2nd/multi-stage desk, or the DUP
14	Manual paper feed tray empty sensor 2	MPLS2	Manual feed tray position detection
15	Manual paper feed tray empty sensor 1	MPLS1	Manual feed tray position detection
16	Manual feed length detection sensor 1	MPLD1	Manual feed paper length detection
17	Manual feed length detection sensor 2	MPLD2	Manual feed paper length detection

No.	Name	Code	Function and operation
18	Manual feed paper empty sensor	MPED	Manual feed paper empty detection
19	Door switch	DSWR1	Front door and side door open/close detection
20	2nd right door switch	DSWR2	Side door open/close detection
21	2nd cassette paper pass sensor	PFD2	2nd cassette paper pass
22	2nd cassette paper upper limit detection sensor	LUD2	2nd cassette paper upper limit detection
23	2nd cassette paper empty sensor	PED2	2nd cassette paper empty detection
24	1st cassette paper pass sensor	PPD1H	1st cassette paper pass
25	1st cassette paper upper limit detection sensor	LUD1	1st cassette paper upper limit detection
26	1st cassette paper empty sensor	PED1	1st cassette paper empty detection
27	Toner sensor		Toner density detection
28	Center tray paper YES/NO sensor	LOEMP	Center tray paper YES/NO detection
29	Main switch	PSSW	Main power switch
30	Original size sensor	DSIN0	Document size detection (Inch series: PD1, 2) (AB series: PD1 – 3)
31	Reverse pass paper detection sensor	DUP2	Reverse pass detection

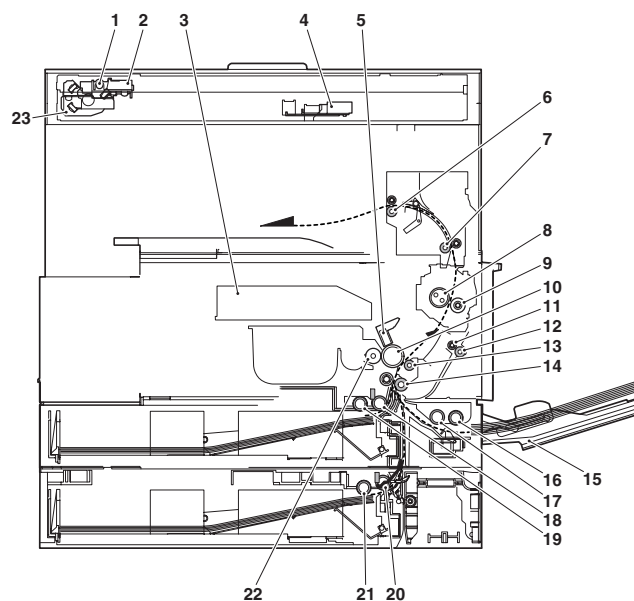
## G. PWB unit



No.	Name	Function and operation
1	Inverter PWB	Copy lamp control
2	CCD PWB	For image scanning (read)
3	Option connector PWB	
4	IMC PWB	Image process
5	MCU PWB	Main unit control
6	Mother board	Connection with FAX PWB and PCL PWB
7	Tray interface PWB	2nd tray control
8	DC power supply PWB	DC voltage control

No.	Name	Function and operation
9	High voltage PWB	High voltage control
10	KEY PWB	
11	OPU PWB	Operation panel control

## H. Section



No.	Name	Function and operation
1	Copy lamp	Image radiation lamp
2	Copy lamp unit	Operates in synchronization with 2nd/3rd mirror unit to radiate documents sequentially.
3	LSU unit	Converts image signals into laser beams to write on the drum.
4	Lens unit	Reads images with the lens and the CCD.
5	MC holder unit	Supplies negative charges evenly on the drum.
6	Paper exit roller	Paper exit roller
7	Transport roller	Paper transport roller
8	Upper heat roller	Fuses toner on paper. (with the Teflon roller)
9	Lower heat roller	Fuses toner on paper. (with the silicone rubber roller)
10	Drum unit	Forms images.
11	DUP transport follower roller	Duplex paper transport
12	DUP transport roller	Duplex paper transport
13	Transport roller	Transfer images on the drum onto paper.
14	Resist roller	Synchronize the paper lead edge with the image lead edge.
15	Manual feed tray	Manual feed paper tray
16	Manual paper feed roller	Picks up papers in manual paper feed port.
17	Manual feed transport roller	Transports paper from the manual paper feed port.
18	1st cassette pick-up roller	Picks up paper from the cassette.
19	1st cassette paper feed roller	Transports the picked up paper to RESIST section.
20	2nd cassette pick-up roller	Picks up paper from the cassette.
21	2nd cassette paper feed roller	Transports the picked up paper to RESIST section.
22	MG roller	Puts toner on the OPC drum.
23	2nd/3rd mirror unit	Reflects the images from the copy lamp unit to the lens unit.

## [7] ADJUSTMENTS, SETTING

### 1. List of adjustment items

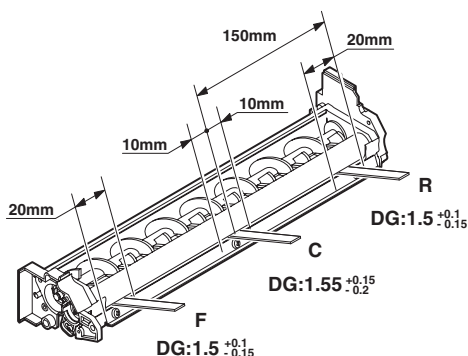
Section		Adjustment item		Adjustment procedure/SIM No.	
A	Process section	(1)	Developing doctor gap adjustment		Developing doctor gap adjustment
		(2)	MG roller main pole position adjustment		MG roller main pole position adjustment
		(3)	Developing bias voltage adjustment		SIM8-1
		(4)	Grid bias voltage adjustment (High mode)		SIM8-2
		(5)	Grid bias voltage adjustment (Low mode)		SIM8-3
B	Mechanism section	(1)	Print start position adjustment		SIM50-5
		(2)	SPF (RSPF) image lead edge position adjustment		SIM50-6
		(3)	Rear edge void adjustment		SIM50-1-6
		(4)	Paper off center adjustment		SIM50-10
		(5)	Left edge void area adjustment		SIM50-1-8
		(6)	Main scanning direction (FR direction) distortion balance adjustment		No. 2/3 mirror base unit installing position adjustment Copy lamp unit installing position adjustment
		(7)	Sub scanning direction (scanning direction) distortion adjustment		Winding pulley position adjustment
		(8)	Main scanning direction (FR direction) distortion adjustment		Rail height adjustment
		(9)	Main scanning direction (FR direction) magnification ratio adjustment		SIM48-1-1
		(10)	Sub scanning direction (scanning direction) magnification ratio adjustment	a	OC mode in copying (SIM 48-1-2)
				b	RSPF sub scanning direction magnification ratio (SIM48-1-3, 48-1-4)
		(11)	Off center adjustment (RSPF mode)		SIM50-12
		(12)	OC (RSPF) open/close detection position adjustment		SIM41-3
		(13)	Original sensor adjustment		SIM41-2, 41-4
		(14)	RSPF white correction pixel position adjustment (required in an RSPF model when replacing the lens unit)		SIM63-7
		(15)	RSPF scan position auto adjustment		SIM53-8
C	Image density (exposure) adjustment	(1)	Copy mode		SIM46-2

### 2. Copier adjustment

#### A. Process section

##### (1) Developing doctor gap adjustment

- Loosen the developing doctor fixing screw A.
- Insert a thickness gauge of 1.5mm to the three positions at 20mm and 150mm from the both ends of the developing doctor as shown.



- Tighten the developing doctor fixing screw.
  - Check the clearance of the developing doctor. If it is within the specified range, then fix the doctor fixing screw with screw lock.
- \* When inserting a thickness gauge, be careful not to scratch the developing doctor and the MG roller.

##### <Adjustment specification>

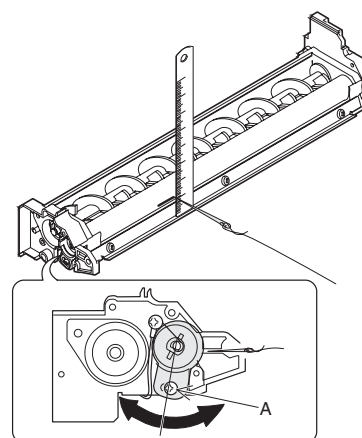
Developing doctor gap

F/R both ends (20mm from the both ends):  $1.5^{+0.1mm}_{-0.15mm}$   
 C (Center)(150mm from the both ends):  $1.55^{+0.15mm}_{-0.2mm}$

##### (2) MG roller main pole position adjustment

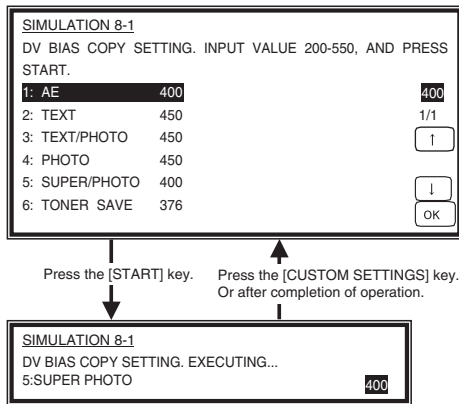
- Put the developing unit on a flat surface.
- Tie a needle or pin on a string.
- Hold the string and bring the needle close to the MG roller horizontally. (Do not use paper clip, which is too heavy to make a correct adjustment.) (Put the developing unit horizontally for this adjustment.)
- Do not bring the needle into contact with the MG roller, but bring it to a position 2 or 3mm apart from the MG roller. Mark the point on the MG roller which is on the extension line from the needle tip.
- Measure the distance from the marking position to the top of the doctor plate of the developing unit to insure that it is 18mm.

If the distance is not within the specified range, loosen the fixing screw A of the main pole adjustment plate, and move the adjustment plate in the arrow direction to adjust.



### (3) Developing bias voltage adjustment (SIM 8-1)

- 1) Execute SIM 8-1.



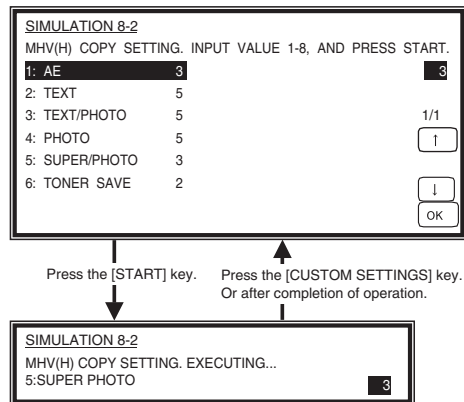
- 2) Touch the exposure mode to be changed.  
The current set value is displayed.
- 3) Enter the set value with the 10-key.
- 4) Press the [START] key.  
Output is made with the entered value, and the display returns to the original state.

#### <Adjustment specification>

Item	Content	Installation range	Default
1 AE	AE	200-550	400 (–400V)
2 TEXT	Character		450 (–450V)
3 TEXT/PHOTO	Character/Photo		450 (–450V)
4 PHOTO	Photo		450 (–450V)
5 SUPER/PHOTO	Super photo		400 (–400V)
6 TONER SAVE	Toner save		376 (–376V)

### (4) Grid bias voltage adjustment (High mode) (SIM 8-2)

- 1) Execute SIM 8-2.



- 2) Touch the exposure mode to be changed.  
The current set value is displayed.
- 3) Enter the set value with the 10-key.
- 4) Press the [START] key.  
Output is made with the entered value for 30sec, and the display returns to the original state.

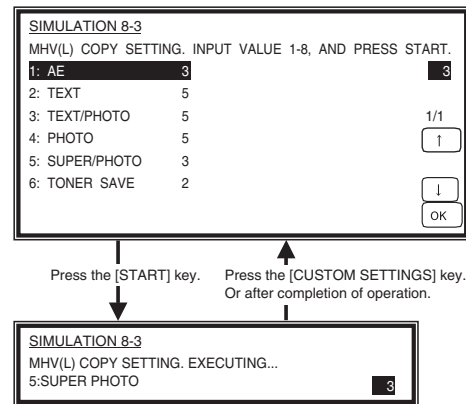
#### <Adjustment specification>

Item	Content	Setting range	Default
1 AE	AE	1-8	3 (–530V)
2 TEXT	Character		5 (–580V)
3 TEXT/PHOTO	Character/Photo		5 (–580V)
4 PHOTO	Photo		5 (–580V)
5 SUPER/PHOTO	Super photo		3 (–530V)
6 TONER SAVE	Toner save		2 (–505V)

Min. unit: –25V increment

### (5) Grid bias voltage adjustment (Low mode) (SIM 8-3)

- 1) Execute SIM 8-3.



- 2) Touch the exposure mode to be changed.  
The current set value is highlighted.
- 3) Enter the set value with the 10-key.
- 4) Press the [START] key.  
Output is made with the entered value for 30sec, and the display returns to the original state.

#### <Adjustment specification>

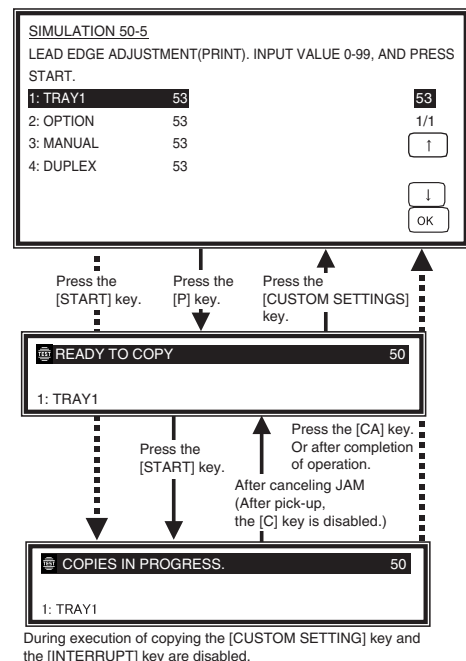
Item	Content	Setting range	Default
1 AE	AE	1-8	3 (–400V)
2 TEXT	Character		5 (–450V)
3 TEXT/PHOTO	Character/Photo		5 (–450V)
4 PHOTO	Photo		5 (–450V)
5 SUPER/PHOTO	Super photo		3 (–400V)
6 TONER SAVE	Toner save		2 (–375V)

Min. unit: –25V increment

## B. Mechanism section

### (1) Print start position adjustment

- 1) Execute SIM 50-5.



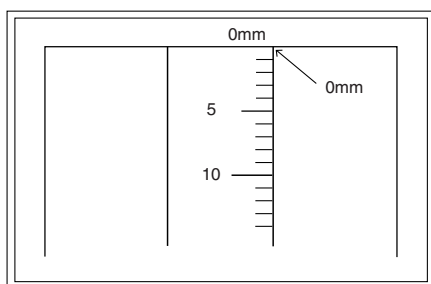
- 2) Touch the item to be adjusted.  
The item and the currently set value are highlighted.
- 3) Press the [P] key.  
The display is shifted to the copy menu.
- 4) Select the paper feed tray, the print density, and the duplex mode.  
Enter the adjustment value with the 10-key.

- 5) Press the [START] key.  
Copying is started.

Item	Content	Setting range	Default
1	TRAY1	1st cassette	53
2	OPTION	Option cassette	
3	MANUAL	Manual feed	
4	DUPLEX	Back print	

- 6) Measure the distance H between the paper lead edge and the image print start position. Set the image print start position set value again.

- 1 step of the set value corresponds to about 0.127mm shift.
- Calculate the set value from the formula below.  
 $99 - H/0.127 \text{ (mm)} = \text{Image print start position set value} <H: \text{Print start position measurement value (mm)}>$

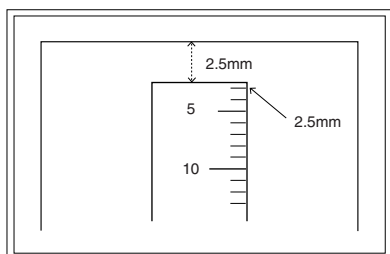


\* Fit the print edge with the paper edge, and perform the lead edge adjustment.

Example:  $99 - 5/0.127 = 99 - 39.4 = \text{about } 59$

Note: If the set value is not obtained from the above formula, perform the fine adjustment.

- 7) Execute SIM 50-1-2 to adjust the main cassette lead edge void.
- 1 step of the set value corresponds to about 0.127mm shift.
  - Calculate the set value from the formula below.  
 $B/0.127 \text{ (mm)} = \text{Lead edge void adjustment value} <B: \text{Lead edge void (mm)}>$



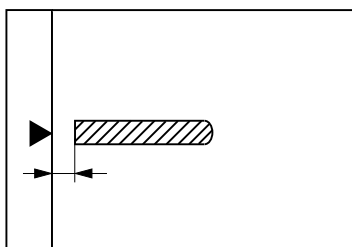
Example: When setting the lead edge void to 2.5mm:  
 $2.5 / 0.127 = \text{about } 20$

<Adjustment specification>

Adjustment mode	SIM	Set value	Spec value	Setting range
Main cassette lead edge void	50-1-2	B/0.127	Lead edge void: 1 – 4mm	1 – 99
Print start position	50-5	$99 - H/0.127$	Image loss: 3mm or less	

## (2) SPF (RSPF) image lead edge position adjustment

- 1) Set a scale on the OC table as shown below.



Note: Since the printed copy is used as a test chart, put the scale in paralleled with the edge lines.

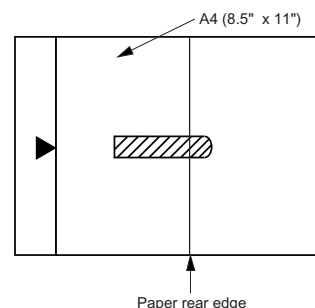
- 2) Make a copy, then use the copy output as an original to make an SPF (RSPF) copy again.
- 3) Check the copy output. If necessary, perform the following adjustment procedures.
- 4) Execute SIM 50-6.
- 5) Set the SPF (RSPF) lead edge position set value so that the same image is obtained as that obtained in the previous OC image lead edge position adjustment.

<Adjustment specification>

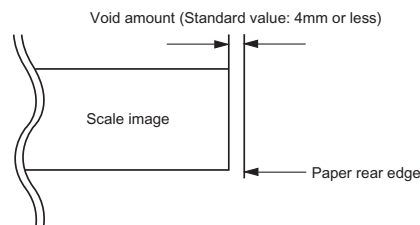
Adjustment mode	SIM	Set value	Spec value	Setting range
SPF (RSPF) image lead edge position	50-6	1 step: 0.127mm shift	Lead edge void: 1 – 4mm Image loss: 3mm or less	1 – 99

## (3) Rear edge void adjustment

- 1) Set a scale as shown in the figure below.



- 2) Set the document size to A4 (8.5" x 11"), and make a copy at 100%.
- 3) If an adjustment is required, follow the procedures below.



- 4) Execute SIM 50-1 and set the density mode to DEN-B. The currently set adjustment value is displayed.
- 5) Enter the set value and press the start key.  
The correction value is stored and a copy is made.

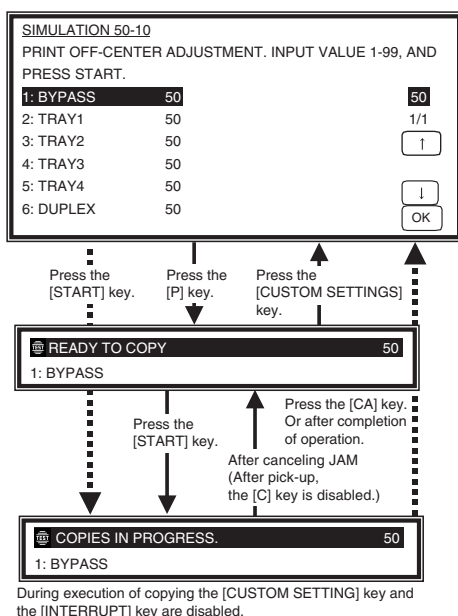
<Adjustment specification>

Adjustment mode	SIM	Set value	Spec value	Setting range
Rear edge void	50-1-6	1 step: 0.127mm shift	4mm or less	1 – 99



#### (4) Paper off center adjustment

- 1) Set a test chart (UKOG-0089CSZZ) on the document table.
- 2) Select a paper feed port and make a copy.
- 3) Execute SIM 50-10.



- 4) Touch the item to be adjusted.  
The item and the currently set value are highlighted.
- 5) Press the [START] key.  
The display is shifted to the copy menu.
- 6) Select the paper feed tray and the print density.  
Enter the adjustment value with the 10-key.
- 7) Press the [START] key.  
Copying is started.

Item	Content	Setting range	Default
1	BYPASS	1-99	50
2	TRAY1		
3	TRAY2		
4	TRAY3		
5	TRAY4		
6	DUPLEX		

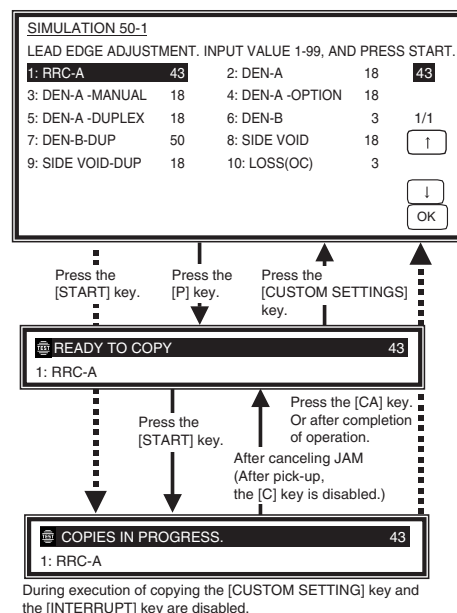
#### <Adjustment specification>

Adjustment mode	SIM	Set value	Spec value	Setting range
Paper off center	50-10 -2	Add 1: 0.127mm shift to R side. Reduce 1:	Single: Center ±2.0mm	1 – 99
Second print surface off-center	50-10 -6	0.127mm shift to L side.	Duplex: Center ±2.5mm	

#### (5) Left edge void area adjustment

Note: Before performing this adjustment, be sure to check that the paper off center adjustment (SIM 50-10) is completed.

- 1) Execute SIM 50-1.



- 2) Note down the adjustment value of SIM 50-5 (Items 1, 2, 3, 4), and change the value to 99.
- 3) Set SIM 50-1 (Items 2, 3, 4, 5) to 1. (By setting to 1, there is no void.)
- 4) Place a chart with a clear lead edge (or a ruler) on the OC document table.
- 5) Use SIM 50-1 (Item 1) to execute test print. Check the print out and adjust so that the lead edge image is printed. (1 – 99: About 0.127mm/Step)
- 6) Reset the adjustment values of SIM 50-5 (Items 1, 2, 3, 4) to the original values, and execute test print. Check the print out and adjust so that the lead edge image is printed on the lead edge of paper. (1 – 99: About 0.127mm/Step).
- 7) Adjust SIM 50-1 (Items 2, 3, 4, 5) so that the lead edge void on the print out is the specified value. (1 – 99: About 0.127mm/Step)
- 8) Similar to procedure 7, adjust SIM 50-1 (Item 6, 7) so that the rear edge void is the specified value. (1 – 99: About 0.127mm/Step)
- 9) Similar to procedure 7, adjust SIM 50-1 (Item 8, 9) so that the left edge void is the specified value. (1 – 99: About 0.127mm/Step)
- 10) Make an enlargement copy (400%), and check that there is no shade of the cabinet printed at the lead edge.
- 11) If there is a shade printed at the lead edge in procedure 9, adjust SIM 50-1 (Item 10). (1 – 5: About 0.677mm)  
\* If there is no problem, set to 3.

Item	Content	Setting range	Default
1	RRC-A	Original scan start position adjustment Lead edge position adjustment value (OC)	1-99 43
2	DEN-A	Lead edge cancel adjustment (Main cassette)	1-99 18
3	DEN-A-MANUAL	Lead edge cancel adjustment (Manual feed cassette)	1-99 18
4	DEN-A-OPTION	Lead edge cancel adjustment (Option cassette)	1-99 18
5	DEN-A-DUPLEX	Lead edge cancel adjustment (back of the machine)	1-99 18
6	DEN-B	Rear edge void adjustment	1-99 30

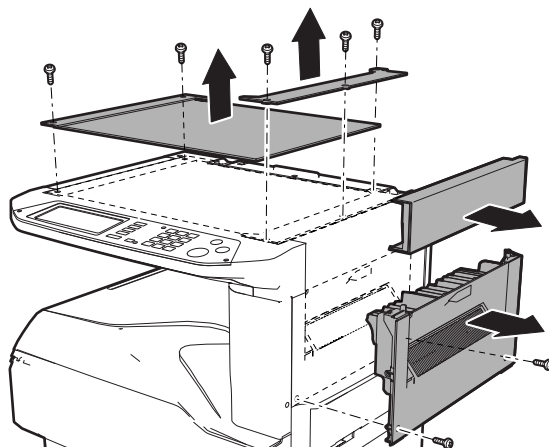
Item		Content	Setting range	Default
7	DEN-B-DUP	Rear edge void adjustment (Duplex)	1-99	50
8	SIDE VOID	Left edge void adjustment (First print surface)	1-99	18
9	SIDE VOID-DUP	Left edge void adjustment (Duplex)	1-99	18
10	LOSS(OC)	Image loss amount adjustment (Lead edge image loss set value) (OC)	1-5	3

**<Adjustment specification>**

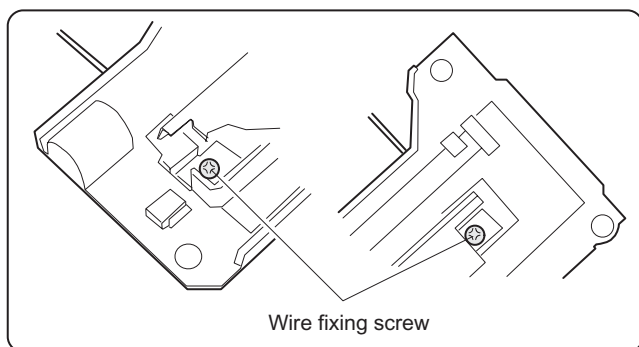
Adjustment mode	SIM	Set value	Spec value	Setting range
Left edge void	50-1-8	1 step: 0.127mm shift	0.5 – 4mm	1 – 99

**(6) Main scanning direction (FR direction) distortion balance adjustment**

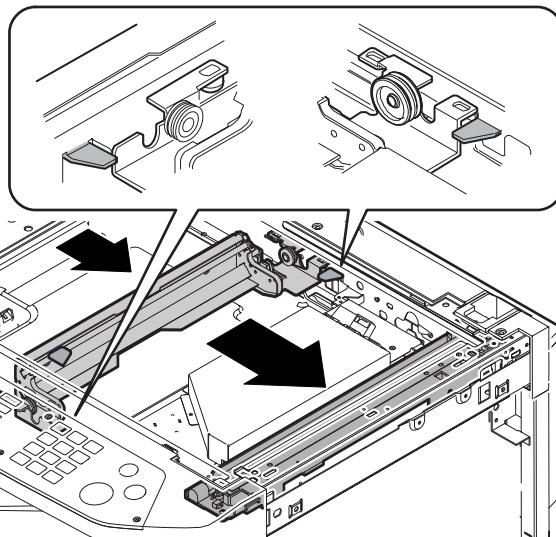
- 1) Remove the OC glass, the right cabinet and the upper right side cover.



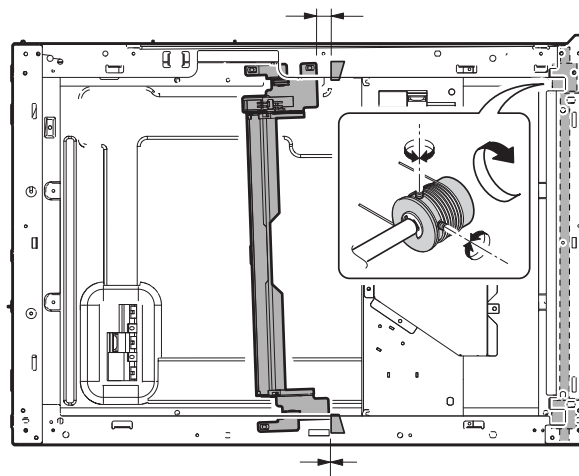
- 2) Loosen the copy lamp unit wire fixing screw.



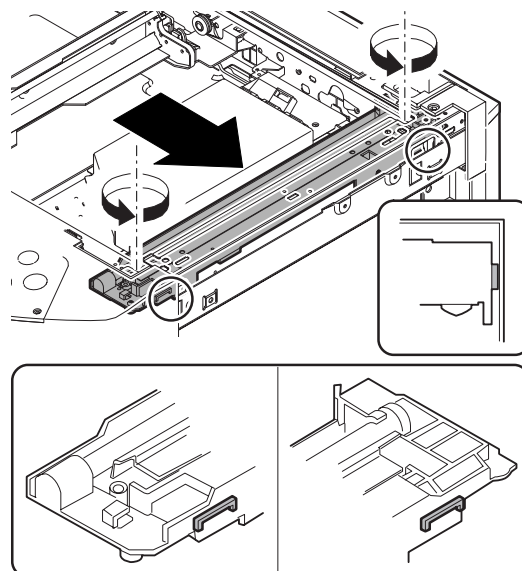
- 3) Manually turn the mirror base drive pulley and bring No. 2/3 mirror base unit into contact with the positioning plate.  
At that time, if the front frame side and the rear frame side of No. 2/3 mirror base unit are brought into contact with the positioning plate at the same time, the mirror base unit parallelism is proper.  
If one of them is in contact with the positioning plate, perform the adjustment of 4).



- 4) Loosen the set screw of the scanner drive pulley which is not in contact with No. 2/3 mirror base unit positioning plate.
- 5) Without moving the scanner drive pulley shaft, manually turn the scanner drive pulley until the positioning plate is brought into contact with No. 2/3 mirror base unit, then fix the scanner drive pulley.



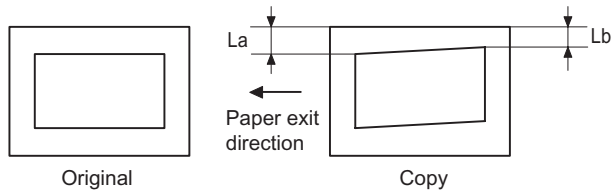
- 6) Put No. 2/3 mirror base unit on the positioning plate again, push the projections on the front frame side and the rear frame side of the copy lamp unit to the corner frame, and tighten the wire fixing screw.



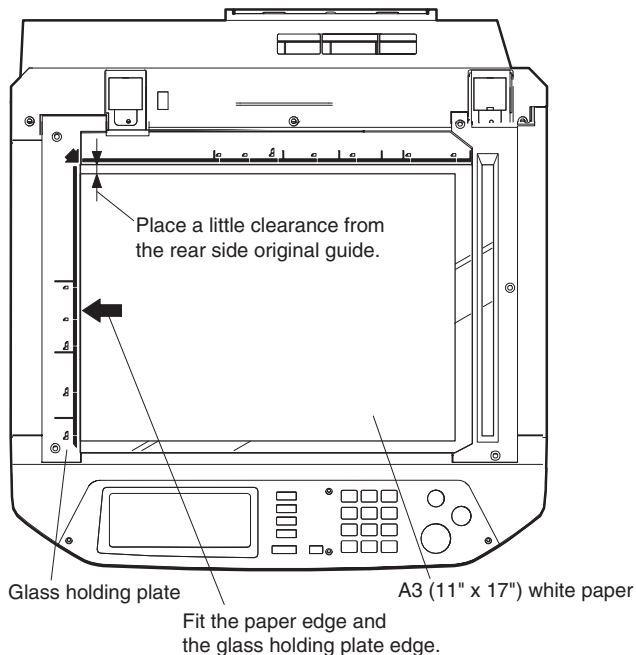
## (7) Sub scanning direction (scanning direction) distortion adjustment (Winding pulley position adjustment)

This adjustment must be performed in the following cases:

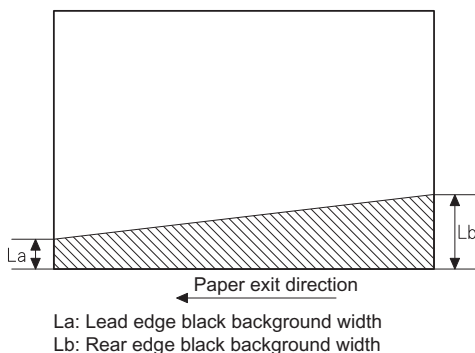
- When the mirror base drive wire is replaced.
- When the lamp unit, or No. 2/3 mirror holder is replaced.
- When a copy as shown is made.



- 1) Set A3 (11" x 17") white paper on the original table as shown below.

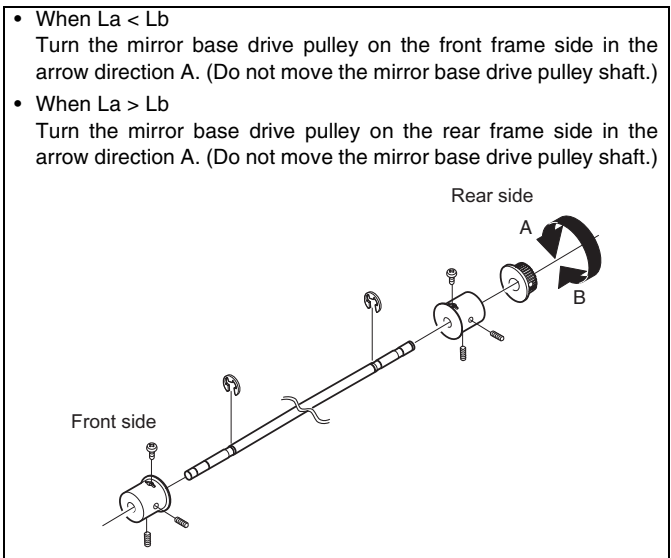


- 2) Open the original cover and make a normal (100%) copy.
- 3) Measure the width of the black background at the lead edge and at the rear edge.



If the width (La) of the black background at the lead edge is equal that (Lb) at the rear edge, there is no need to execute the following procedures of 4) – 7).

- 4) Loosen the mirror base drive pulley fixing screw on the front frame side or on the rear frame side.



- 5) Tighten the fixing screw of the mirror base drive pulley.

### <Adjustment specification>

$L_a = L_b$

- 6) Execute the main scanning direction (FR) distortion balance adjustment previously described in 2) again.

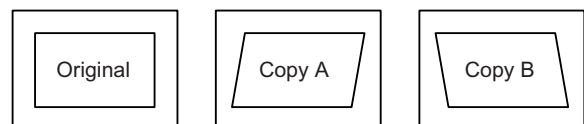
## (8) Main scanning direction (FR direction) distortion balance adjustment (Rail height adjustment)

When there is no skew copy in the mirror base scanning direction and there is no horizontal error (right angle to the scanning direction), the adjustment can be made by adjusting the No. 2/3 mirror base unit rail height.

Before performing this adjustment, be sure to perform the horizontal image distortion adjustment in the laser scanner section.

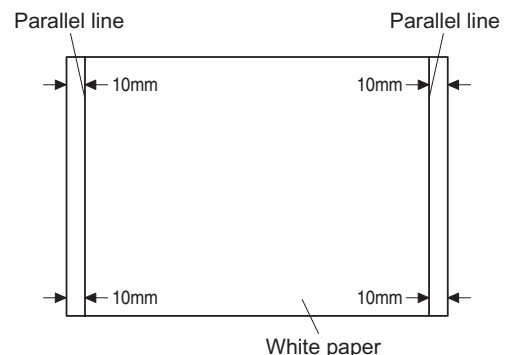
This adjustment must be performed in the following cases:

- When the mirror base wire is replaced.
- When the copy lamp unit and no. 2/3 mirror unit are replaced.
- When the mirror unit rail is replaced and moved.
- When a following copy is made.



- 1) Make an original for the adjustment.

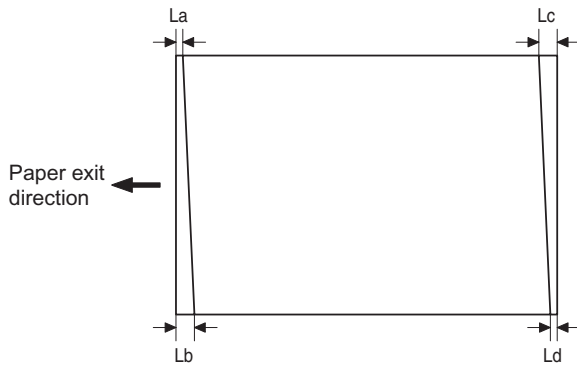
Make test sheet by drawing parallel lines at 10mm from the both ends of A3 (11" x 17") white paper as shown below. (These lines must be correctly parallel to each other.)



- 2) Make a normal (100%) copy of the test sheet on A3 (11" x 17") paper. (Fit the paper edge and the glass holding plate edge.)

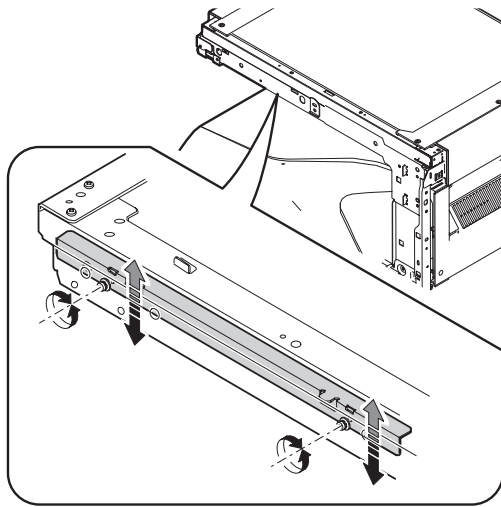


- 3) Measure the distances (La, Lb, Lc, Ld) at the four corners as shown below.



When  $L_a = L_b$  and  $L_c = L_d$ , no need to perform the procedures 4) and 5).

- 4) Move the mirror base B rail position up and down (in the arrow direction) to adjust.



- When  $L_a > L_b$   
Shift the mirror base B rail upward by the half of the difference of  $L_a - L_b$ .
  - When  $L_a < L_b$   
Shift the mirror base B rail downward by the half of the difference of  $L_b - L_a$ .  
Example: When  $L_a = 12\text{mm}$  and  $L_b = 9\text{mm}$ , shift the mirror base B rail upward by 1.5mm.
  - When  $L_c > L_d$   
Shift the mirror base B rail downward by the half of the difference of  $L_c - L_d$ .
  - When  $L_c < L_d$   
When  $L_c < L_d$ , move the mirror base B on the paper feed side upward.
- \* When moving the mirror base rail, hold the mirror base rail with your hand.

#### <Adjustment specification>

$L_a = L_b$ ,  $L_c = L_d$

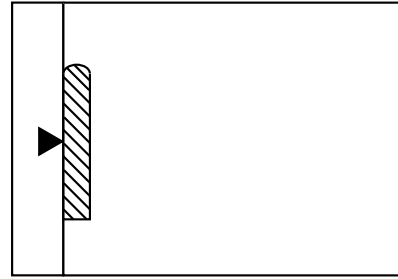
- 5) After completion of adjustment, manually turn the mirror base drive pulley, scan the mirror base A and mirror base B fully, and check that the mirror bases are not in contact with each other.

\* If the mirror base rail is moved extremely, the mirror base may be in contact with the frame or the original glass. Be careful to avoid this.

#### (9) Main scanning direction (FR direction) magnification ratio adjustment (SIM 48-1)

Note: Before performing this adjustment, be sure to check that the CCD unit is properly installed.

- 1) Put a scale on the original table as shown below.



- 2) Execute SIM 48-1.
- 3) After warm-up, shading is performed and the current set value of the main scanning direction magnification ratio is displayed on the display section in 2 digits.

- 4) Manual correction mode (SIM48-1-1)

Enter the set value and press the start key.

The correction value is stored and a copy is made.

#### <Adjustment specification>

Note: A judgment must be made with 200mm width, and must not be made with 100mm width.

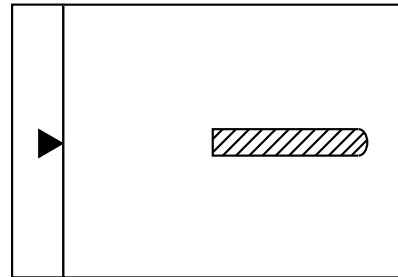
Adjustment mode	Spec value	SIM	Set value	Setting range
Main scanning direction magnification ratio	At normal: $\pm 1.0\%$	48-1-1	Add 1: 0.1% increase Reduce 1: 0.1% decrease	1 – 99

#### (10) Sub scanning direction (scanning direction) magnification ratio adjustment (SIM 48-1-2)

##### a. OC mode in copying

Note: Execute the procedure after completion of SIM 48-1-2.

- 1) Put a scale on the original table as shown below, and make a normal (100%) copy.



- 2) Compare the scale image and the actual scale.  
If necessary, perform the following adjustment procedures.
- 3) Execute SIM 48-1-2.
- 4) Enter the set value and press the start key.  
The set value is stored and a copy is made.

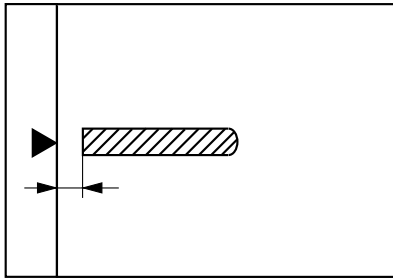
#### <Adjustment specification>

Adjustment mode	Spec value	SIM	Set value	Setting range
Sub scanning direction magnification ratio (OC mode)	At normal: $\pm 1.0\%$	48-1-2	Add 1: 0.05% increase Reduce 1: 0.05% decrease	1 – 99

##### b. RSPF sub scanning direction magnification ratio

Note: Before performing this adjustment, be sure to check that the CCD unit is properly installed and that OC mode adjustment in copying has been completed.

- 1) Put a scale on the original table as shown below, and make a normal (100%) copy.



Note: Since the printed copy is used as a test chart, put the scale in parallel with the front side edge of the glass.

- 2) Set the test chart on the RSPF and make a normal (100%) copy.
- 3) Compare the scale image and the actual image.  
If necessary, perform the following adjustment procedures.
- 4) Execute SIM 48-1-3.
- 5) After warm-up, shading is performed.  
The current front surface sub scanning direction magnification ratio correction value is displayed in two digits on the display section.
- 6) Enter the set value and press the start key.  
The set value is stored and a copy is made.
- 7) Execute SIM 48-1-4.  
The current back surface sub scanning direction magnification ratio is displayed in two digits on the display section.
- 8) Enter the set value and press the start key.  
The set value is stored and a copy is made.

#### <Adjustment specification>

Adjustment mode	Spec value	SIM	Set value	Setting range
Sub scanning direction magnification ratio (SPF mode)	At normal: $\pm 1.0\%$	48-1-3 48-1-4	Add 1: 0.05% increase Reduce 1: 0.05% decrease	1 – 99

#### (11) Off center adjustment (RSPF mode)

Note: Before performing this adjustment, be sure to check that the paper off center is properly adjusted.

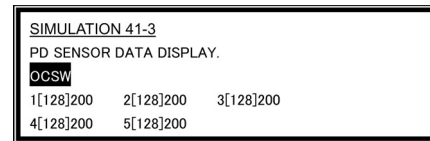
- 1) Place the center position adjustment test chart (sheet with a straight line in the scan direction at the center) on the RSPF.
- 2) Make a normal copy from the manual paper feed tray, and check the printed copy with the test chart.  
If any adjustment is required, perform the following procedure.
- 3) Execute SIM 50-12.
- 4) After warm-up, shading is performed and the current set value of the off center adjustment is displayed on the display section in 2 digits.
- 5) Enter the set value and press the start key.  
The set value is stored and a copy is made.

#### <Adjustment specification>

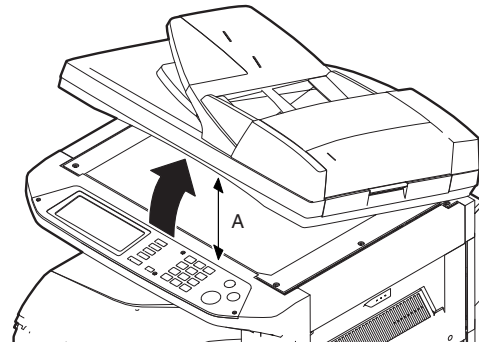
Adjustment mode	Spec value	SIM	Set value	Setting range
Original off center mode (RSPF mode)	Single: Center $\pm 3.0\text{mm}$	50-12	Add 1: 0.1mm shift to R side	1 – 99
	Duplex: Center $\pm 3.5\text{mm}$		Reduce 1: 0.1mm shift to L side	

#### (12) OC (SPF) open/close detection position adjustment

- 1) Execute SIM 41-3.
- 2) Gradually close the OC (SPF) from the full open position, and measure distance A when the display on the operation panel changes. (See the figure below.)



Distance A = Table glass top - OC (RSPF) handle rib

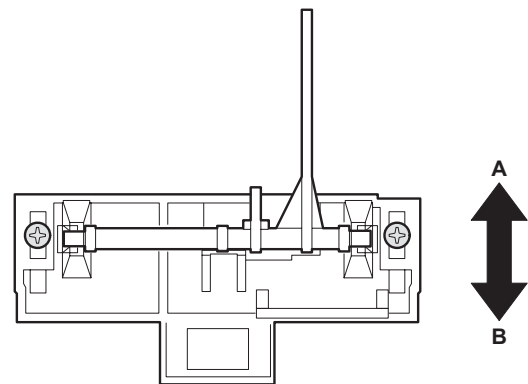


#### <Adjustment specification>

OC (SPF) open/close position A: 125 – 225mm

- 3) If the distance is outside the specified range, adjust the open/close sensor attachment plate position as shown below.

- Distance < 125mm: Shift toward A.
- Distance > 225mm: Shift toward B.



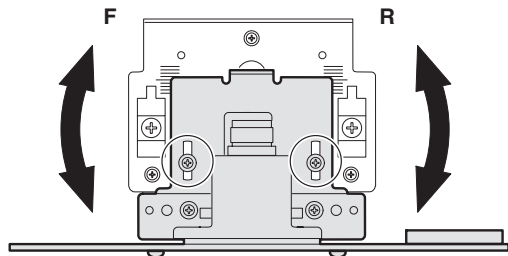
#### (13) Original sensor adjustment (SIM 41-2, 41-4)

- 1) Set A3 (11" x 17") paper on the OC table.  
(Keep the SPF (OC cover) open.)
- 2) Execute SIM 41-2.
- 3) Keep A=125mm, and execute SIM 41-4. (Do not put paper on the table.)
- 4) Check the reaction with SIM 41-1.

#### (14) RSPF white correction pixel position adjustment (required in an RSPF model when replacing the lens unit) (SIM63-7)

- 1) Fully open the RSPF.
- 2) Execute SIM 63-7.
- 3) When the operation panel displays "COMPLETE," the adjustment is completed.
- 4) If the operation panel displays "ERROR," perform the following measures.
  - When the display is 0:
    - Check that the SPF is open.
    - Check that the lamp is ON. (If the lamp is OFF, check the MCU connector.)
    - Check that the CCD harness is properly inserted into the MCU connector.
  - When the display is 281 or above:
    - 1) Remove the table glass.
    - 2) Remove the dark box.

- 3) Slide the lens unit toward the front side and attach it, then execute SIM.
- When the display is 143 or below:
  - 1) Remove the table glass.
  - 2) Remove the dark box.
  - 3) Slide the lens unit toward the rear side and attach it, then execute SIM.



- \* When the lens unit is moved, execute the OC main scanning magnification ratio auto adjustment, SIM 48-1-1.
- \* This adjustment is basically O.K. with SIM 63-7.

### (15) RSPF scan position auto adjustment

#### [Function]

Used to adjust the RSPF scan position automatically.

#### [Operation]

- 1) With the RSPF or the OC cover open, place a chart of black background on the OC glass. (In the RSPF standard model, the RSPF glass surface is included.)

- \* Use a black chart (UKOG-0011QSZZ) or prepare a chart as shown below.  
Chart size: 310 x 470, prepared with cutting sheet No. 791 (Black) or an equivalent one.

Reason: To prevent erroneous detection by disturbing light of a fluorescent lamp, etc.

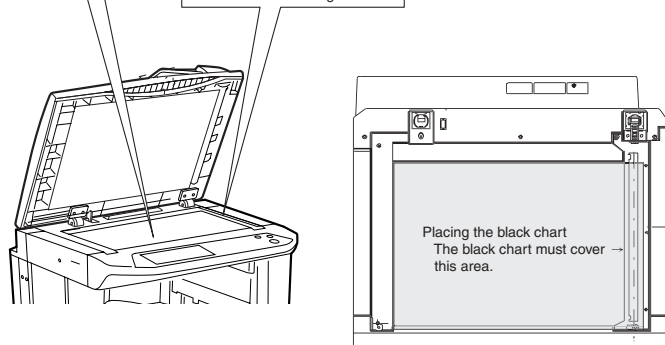
- 2) Enter SIM53-08, and press [START] button.  
Outline of SIM: The optical unit is shifted to recognize the boundary between the OC glass and the RSPF glass cover.  
With the same position as the reference, the RSPF scan position is automatically adjusted.

#### <Note>

- After completion of the RSPF scan position auto adjustment, the SPF lead edge adjustment must be executed. (Both surfaces)
  - There must be no other sheet than the black chart on the glass surface.
  - Especially when in RSPF scan, the center area is scanned in the main scan direction. Be careful to prevent external light from entering the scan area.
- 3) Check that the lead edge is not shifted. (Both surfaces)  
(If the original lead edge adjustment has been made properly, even when the scan position is shifted, it is followed automatically.)

Place only the black chart on the OC glass.

For the RSPF standard-provision machine, check that the black chart covers the SPF glass.

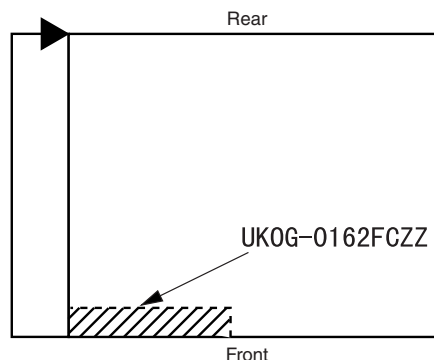


- 4) Change the adjustment value of the RSPF scan end position. (Change the adjustment value of SIM50-6-3 from 50 to 36.)  
Change the number of steps for Pin off – scan end position from 1,014 to 986.  
Be sure to execute this adjustment because an image may be cut off during FAX transmission though copying is normally performed.
- 5) Change the initial value of the RSPF exposure adjustment (SIM46-20) from 50 to 53.  
(For the CCD exposure adjustment with RSPF, use the value of the OC adjustment value +3.)  
There are suffixes of -1 SPF and -2 RSPF. Change each of them.

### C. Image density (exposure) adjustment

#### (1) Copy mode (SIM46-2)

- 1) Set a test chart (UKOG-0162FCZZ) on the OC table as shown below.



- 2) Place three or more sheets of A3 (11" x 17") paper on the test chart.
- 3) Execute SIM 46-2.
- 4) After warm-up, shading is performed and the current set value of the density (exposure) level is displayed on the display section in 2 digits.  
For mode selection, use the [10-key].
- 5) Change the set value with the [10-key] to adjust the copy image density.
- 6) Make a copy and check that the specification below is satisfied.

Note: Place originals in the rear reference, and the test chart in the front reference when adjusting the exposure.

#### <Adjustment specification>

Density mode	Exposure level	Sharp Gray Chart output	Set value	Setting range
AUTO	—	"3" is copied.	If too bright, increase the quantity displayed on the copy quantity display. If too dark, decrease the quantity displayed on the copy quantity display.	0 – 99
TEXT	1.0	"7" is copied.		
	3.0	"3" is copied.		
	5.0	"2" is copied.		
TEXT/PHOTO	1.0	"6" is copied.		
	3.0	"3" is copied.		
	5.0	"2" is copied.		
PHOTO	1.0	"5" is copied.		
	3.0	"3" is copied.		
	5.0	"2" is copied.		
SUPER PHOTO	1.0	"5" is copied.		
	3.0	"3" is copied.		
	5.0	"2" is copied.		
AE (TONER SAVE)	—	"3" is copied.		
TEXT (TONER SAVE)	1.0	"7" is copied.		
	3.0	"3" is copied.		
	5.0	"2" is copied.		
TEXT PHOTO (TONER SAVE)	1.0	"6" is copied.		
	3.0	"3" is copied.		
	5.0	"2" is copied.		

## [8] SIMULATION

### (Diagnostics, setup, adjustment value input, data display)

#### 1. Outline and purpose

The simulation has the following functions to grasp the machine operating status, identify the trouble position and causes in an earlier stage, and make various setups and adjustments speedily for improving the serviceability of the machine.

- 1) Various adjustments
- 2) Setup of specifications and functions
- 3) Canceling troubles
- 4) Operation check
- 5) Various counters check, setup, and clear
- 6) Machine operating status (operation history) data check, clear
- 7) Transfer of various data (adjustments, setup, operations, counters)

The operating procedures and the displays differ depending on the form of the operation panel of the machine.

#### 2. Code-type simulation

##### A. Operating procedures and operations

\* Entering the simulation mode

- 1) #/P key (program) ON → Asterisk (\*) key ON → CLEAR key ON → Asterisk (\*) key ON → Ready for input of a main code of simulation
- 2) Entering a main code with the 10-key → START key ON
- 3) Entering a sub code with the 10-key → START key ON
- 4) Select an item with the scroll key and the item key.
- 5) The machine enters the mode corresponding to the selected item.  
Press START key to start the simulation operation.  
To cancel the current simulation mode or to change the main code and the sub code, press the CUSTOM SETTINGS key.

\* Canceling the simulation mode to return to the normal mode

- 1) Press CLEAR ALL key.

##### B. How to change the simulation adjustment value set by the touch panel in the adjustment value entry process

###### (1) Target SIM list

3-7, 8-1, 8-2, 8-3, 8-10, 8-11, 8-12, 9-5, 43-1, 44-34, 46-2, 46-7, 46-9, 46-10, 46-11, 46-18, 46-20, 46-30, 46-31, 48-1, 48-2, 50-1, 50-5, 50-6, 50-10, 50-12, 51-1, 51-2, 51-9, 53-7

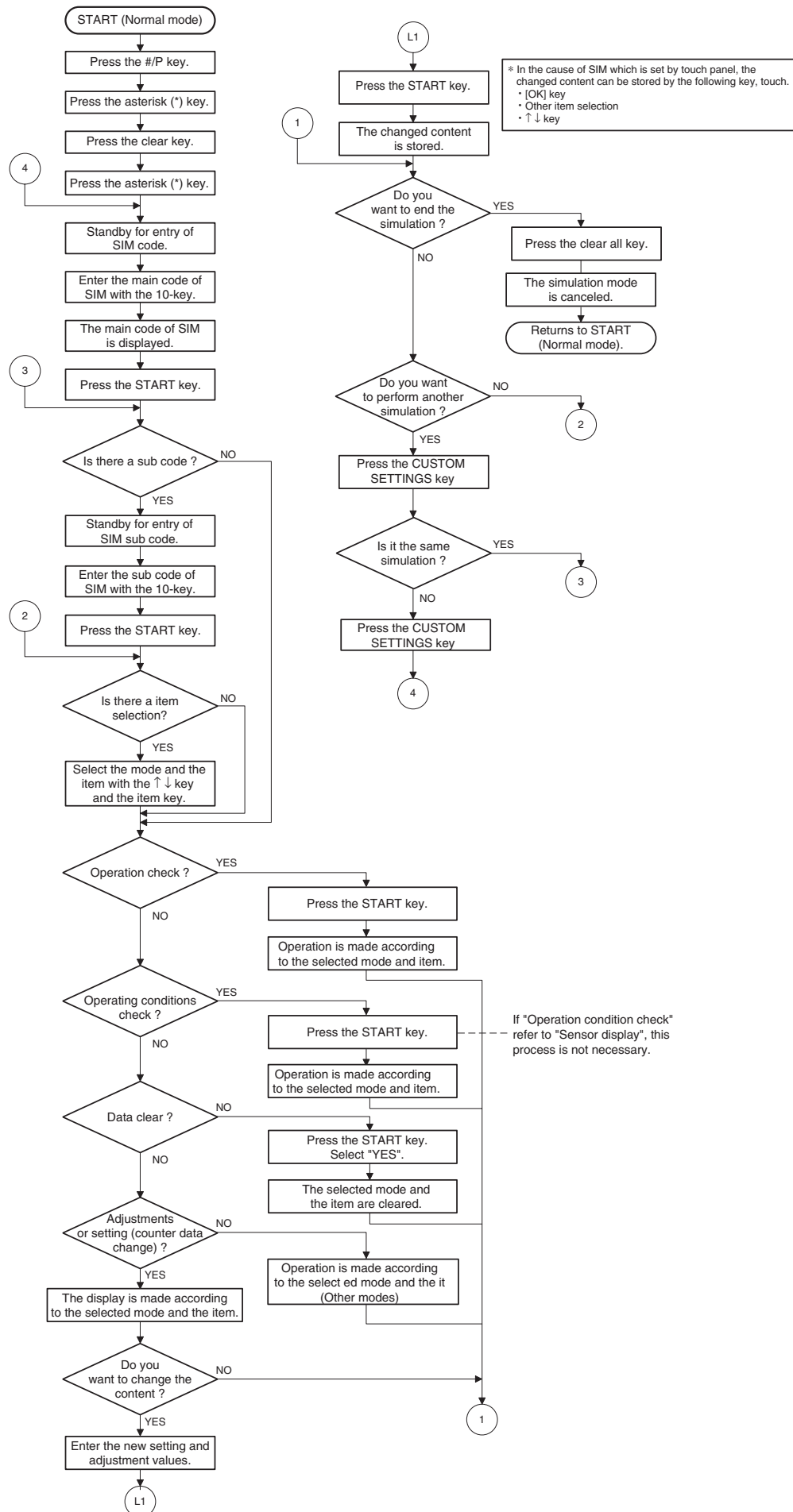
###### (2) Touch panel operating procedure

- In the adjustment value setup menu, the selected item is highlighted. Change is made to the highlighted simulation adjustment value.
- If all the list of the adjustment items is not shown on one page, touch [↑] and [↓] button to shift the page.
- To change an adjustment value, touch the select the item to change the adjustment value. (The selected item is highlighted.) Enter the adjustment value and perform one of the following procedures, and the display of the adjustment value of the selected item is renewed as well as the adjustment value.
  - 1) Touch [OK] button.
  - 2) Touch another selected item to change the selection state.
  - 3) If all the list of the adjustment items cover two or more pages, touch [↑] and [↓] button to shift the page.

- 4) Press [START] key.

\* For simulations which allow confirmation print, copying is started after changing the adjustment value.  
(46-2, 46-7, 46-9, 46-10, 46-11, 46-18, 48-1, 48-2, 50-1, 50-5, 50-6, 50-10, 50-12, 51-2, the bold-faced items in the above list.)

\* If the entry value is outside the adjustable range, an error buzzer sounds and the adjustment value is not renewed. Page shift is not made, either.



### 3. Simulation code list

Code		Function
Main	Sub	
1	1	Used to check the operation of the scanner unit and its control circuit.
	2	Used to check the operation of sensor and detector in the scanning (read) section and the related circuit.
2	1	Used to check the operation of the SPF/RSPF unit and the related circuit.
	2	Used to check the operation of sensors and detectors in the SPF/RSPF unit and the related circuit.
	3	Used to check the operation of the loads in the SPF/RSPF unit and the control circuits.
3	2	Used to check the operation of sensor and detector in the finisher and the related circuit.
	3	Used to check the operation of the load in the finisher and the control circuit.
	6	Used to adjust the alignment position (side regulation plate, rear edge regulation plate) for each paper size. Shifts to the specified paper size position.
	7	Used to adjust the offset tray operations.
4	2	Used to check the operation of sensor and detector in the option cassette and the related circuit.
	3	Used to check the operation of the load in the option tray and the control circuit.
5	1	Used to check the operation of the display (LED), LCD in the operation panel, and control circuit.
	2	Used to check the operation of the heater lamp and the control circuit.
	3	Used to check the operation of the copy lamp and the control circuit.
6	1	Used to check the operation of the loads (clutches and solenoids) in the paper transport system and the control circuit.
	2	Used to check the operation of each fan motor and its control circuit.
7	1	Used to set the aging operation conditions.
	6	Used to set the cycle of intermittent aging.
	8	Used to set the display of the warm-up time.
8	1	Used to check and adjust the operation of the developing bias voltage in each copy mode and the control circuit.
	2	Used to check and adjust the operation of the main charger grid voltage (high mode) in each copy mode and the control circuit.
	3	Used to check and adjust the operation of the main charger grid voltage (low mode) in each copy mode and the control circuit.
	10	Used to check and adjust the operation of the developing bias voltage in each printer mode and the control circuit.
	11	Used to check and adjust the operation of the main charger grid voltage (high mode) in each printer mode and the control circuit.
12	12	Used to check and adjust the operation of the main charger grid voltage (low mode) in each printer mode and the control circuit.

Code		Function
Main	Sub	
8	13	Used to check and adjust the operation of the developing bias voltage in FAX mode and the control circuit.
	14	Used to check and adjust the operation of the main charger grid voltage (high mode) in FAX mode and the control circuit.
	15	Used to check and adjust the operation of the main charger grid voltage (low mode) in FAX mode and the control circuit.
9	1	Used to check and adjust the operation of the load (motor) in the duplex section and the control circuit.
	4	Duplex motor RPM setting
	5	Used to adjust the timing of switching from normal rotation to reverse rotation or from reverse rotation to normal rotation of the duplex motor.
10	0	Used to check the operation of the toner motor and its control circuit.
14	0	Used to cancel excluding the self-diag U2/PF troubles.
16	0	Used to cancel the self-diag U2 trouble.
17	0	Used to cancel the self diag "PF" trouble.
21	1	Used to set the maintenance cycle.
22	1	Used to check the counter value of each section.
	2	Used to check the total numbers of misfeed and troubles. (When the number of misfeed is considerably great, it is judged as necessary for repair. The misfeed rate is obtained by dividing this count value with the total counter value.)
	3	Used to check the misfeed positions and the number of misfeed at each position. (When the number of misfeed is considerably great, it can be judged as necessary for repair.)
	4	Used to check the total trouble (self diag) history.
	5	Used to check the ROM version of each unit (section).
	6	Used to print each key operator setting, the account information, and the machine adjustment values.
	7	Used to display the key operator code. (Use when the customer key operator code is forgotten.)
	8	Used to display the original, staple counter.
	9	Used to check the number of use of each paper feed section. (the number of prints)
	10	Used to check the system configuration.
	11	Used to display the FAX send/receive counter (FAX reception and print counter).
	12	Used to check the misfeed positions and the number of misfeed at each position. (When the number of misfeed is considerably great, it can be judged as necessary for repair.)
24	13	Used to display the CRUM type.
	19	Used to display the scanner counter in the network scanner mode.
	1	Used to clear the misfeed counter, the misfeed history, the trouble counter, and the trouble history. (The counters are cleared after completion of maintenance.)
	2	Used to clear the number of use (the number of prints) of each paper feed section.
	3	Used to clear the number data of use of the staple, the SPF/RSPF and scanning.
	4	Used to reset the maintenance counter.
5	5	Used to reset the developer counter. (The developer counter of the DV unit which is installed is reset.)
	6	Used to clear the copy counter.

Code		Function
Main	Sub	
24	7	Used to clear the OPC drum (membrane decrease) correction counter. (This simulation is executed when the OPC drum is replaced.)
	9	Used to clear the printer counter and other counters. (The counter is cleared after completion of maintenance.)
	10	FAX counter data clear
	15	Used to clear the scanner counter in the network scanner mode.
25	1	Used to check the operation of the main drive (excluding the scanner section) and to check the operation of the toner concentration sensor. (The toner concentration sensor output can be monitored.) (To be supported for Ver.00.72 or later)
	2	Used to make the initial setting of toner concentration when replacing developer.
26	1	Used to set whether the job separator is installed or not. (Since this cannot be detected by hardware detection, it is set in this simulation.)
	2	Used to set whether the automatic detection of paper size is made or not.
	3	Used to set the specifications of the auditor. Setting must be made depending on the use condition of the auditor.
	5	Used to set the count mode of the total counter and the maintenance counter.
	6	Used to set the specifications depending on the destination.
	10	Network scanner trial mode setting
	12	Used to input the Software Key for E-MAIL RIC.
	14	Used to input the Software Key for the PS extension kit.
	18	Used to set enable/disable of toner save operation.
	22	Used to set the specification (language display) for the destination.
	30	Used to set ON/OFF of the heater lamp slow-up control conforming to the CE mark control.
	35	Used to set whether the same continuous troubles are displayed as one trouble or the series of troubles with SIM 22-4 when the same troubles occur continuously.
	36	Used to set whether the machine is stopped or not when the maintenance counter life is expired.
	41	Used to set ON/OFF of the automatic magnification ratio selection (AMS) when setting the binding function.
	46	Used to set whether to meet with the output direction of images regardless of the mode when installing the finisher.
	50	Used to set ON/OFF of the black and white reversion function.
	57	Used to set the model code.
	60	Used to set enable/disable of the FAX mode key when FAX is not installed. (When FAX is installed, the FAX mode is enabled regardless of this setup.)
	71	In the power save time setting, the pre-heat (pre-heat mode setting) and the auto power shut off time can be set to the short time setup (pre-heat: 1 min, auto power shut off: 4 min) and the long time setup (pre-heat: 15min, auto power shut off: 60min).
27	1	Used to set PC/MODEM communication trouble (U7-00) detection Yes/No.
	5	Used to set the tag number.

Code		Function
Main	Sub	
30	1	Used to display the sensor status attached to the machine.
	2	Used to display the status of the sensors attached to the standard cassette and the manual feed tray. (Use SIM 4-2 for the option cassettes.) The sensor of an uninstalled cassette is not displayed.
40	1	Used to check the sensor of the machine manual feed tray.
	2	Used to adjust the manual paper feed tray paper width detector detection level.
	3	The AD conversion value of manual feed width detection is displayed.
41	1	Used to check the document size detection photo sensor.
	2	Used to adjust the detection level of the document size photo sensor.
	3	Used to check the light reception level and the detection level of the original size detection photo sensor.
	4	Used to adjust the detection level of OC 20 degrees.
43	1	Used to set the fusing temperature in 600dpi, 1200dpi, or postcard print.
	10	Used to set the paper feed cycle timing when printing postcards.
44	1	Used to make various setups in each mode of process control.
	34	Used to set the transfer current value in each mode.
	35	Used to set the DV-Bias/Grid environment (low temperature) correction temperature.
	40	Used to set the time from the start of the main motor rotation (Ready) to the start of toner supply in previous rotation after turning on the power.
46	2	Used to set the exposure level in each exposure mode.
	7	Used to adjust the shift amount and the inclination value for each level (1 to 5) of the exposure mode (Super Photo).
	9	Used to adjust the shift amount and the inclination value for each level (1 to 5) of the exposure mode (Text).
	10	Used to adjust the shift amount and the inclination value for each level (1 to 5) of the exposure mode (Text/Photo).
	11	Used to adjust the shift amount and the inclination value for each level (1 to 5) of the exposure mode (Photo).
	12	FAX exposure level adjustment (1 mode automatic adjustment)
	13	FAX exposure level adjustment (Normal mode individual adjustment)
	14	FAX exposure level adjustment (Fine text mode individual adjustment)
	15	FAX exposure level adjustment (Super Fine mode individual adjustment)
	16	FAX exposure level adjustment (Ultra Fine mode individual adjustment)
	18	Used to adjust inclination for each exposure mode.
	19	Used to set the control method of the exposure mode.
	20	Used to set the exposure correction value of SPF/RSPF for OC exposure.
30		Used to set the AE and the limit value in AE (Toner save).

Code		Function
Main	Sub	
46	31	Used to set the AE and the limit value in AE (Toner save).
	39	Used to switch the FAX send image quality.
48	1	Used to adjust the copy mode magnification ratio (main scanning direction, sub scanning direction).
	2	Used to adjust the scanner mode magnification ratio (main/sub scanning direction).
	8	FAX magnification adjustment (read)
	9	FAX magnification adjustment (print)
50	1	Used to adjust the copy lead edge position.
	5	Used to adjust the print image position (top margin) on the print paper in the print mode.
	6	Used to adjust the print image position (top margin) on print paper in the copy mode. (SPF/RSPF)
	8	FAX lead edge adjustment (read)
	9	FAX lead edge adjustment (print)
	10	Used to adjust the print image center position. (Adjustment can be made for each paper feed section.)
51	12	Used to adjust the print image center position. (Adjustment can be made for each document mode.)
	1	Used to adjust the OPC drum separation pawl ON time.
	2	Used to adjust the contact pressure of paper onto the resist roller in each section (copier paper feed section, duplex paper feed section, SPF/RSPF paper feed section). (When the print image position varies greatly for the paper or when a lot of paper jam troubles occur, the adjustment is required.)
	8	Used to set the OPC drum separation pawl operation inhibit. (ON/OFF)
	9	Used to adjust the OPC drum separation voltage ON/OFF timing.
53	6	Used to adjust the detection level of the SPF/RSPF width. The adjustment method is the 4-point system. Set the guide to Max. (A3/WLetter) position, A4R/Letter R position, A5R/Invoice R position, and Min. position for adjustment.
	7	Used to enter the SPF/RSPF width detection adjustment value.
	8	Used to adjust the SPF/RSPF scan position of the mirror unit automatically. For the SPF/RSPF scan position automatic adjustment, the mirror unit is shifted to 11mm before the SPF/RSPF glass cover edge, and is operated automatically to scan images by the unit of 1 step, detecting the position up to the glass cover automatically. (Adjustment value) Default: 50, Adjustment range: 1 - 99 Adjustment unit: 1 = about 0.12mm
61	1	Used to check the LSU (polygon motor) operation.
63	1	Used to check the result of shading correction. (The shading correction data are displayed.)
	7	Used to adjust the SPF/RSPF white correction start pixel position automatically. This adjustment is performed after the lens unit is replaced.
64	1	Used to check the operation of the printer function (auto print operation).

Code		Function
Main	Sub	
65	1	Used to adjust the touch panel (LCD display section) detection position.
	2	Used to check the touch panel (LCD display section) detection position adjustment result.
	5	Used to check the key inputs of the operation panel.
66	1	Used to change and check the FAX-related soft SW.
	2	Used to clear the FAX-related soft SW. (Except for the FAX adjustment values)
	3	FAX PWB memory check
	4	Signal send mode (Signal send level: Max.)
	5	Signal send mode (Signal send level soft SW setting)
	6	Printing the confidential password
	7	Print the screen memory contents
	8	Voice Message send (Signal send level: Max.) (Japan only)
	9	Used to send the voice message. (Signal send level: Set by soft SW.)
	10	Image data memory clear
	11	Used to send 300bps signals. (Signal send level: Max.)
	12	Used to send 300bps signals. (Signal send level: Set by soft SW)
	13	Used to register the dial numbers.
	14	Used to perform the dial test. (10 PPS send test)
	15	Used to perform the dial test. (20 PPS send test)
	16	Used to perform the dial test. (DTFM signal send test)
	17	Used to check the DTFM signal send operation. (Signal send level: Max.)
	18	Used to check the DTFM signal send operation. (Signal send level: Set by soft SW.)
	19	Used to write the SRAM data to the Flash ROM.
	20	Used to write the Flash ROM data to the SRAM.
67	21	FAX information print
	22	Handset sound volume adjustment (Japan only)
	24	Used to clear the FAST storage data. (SEC only)
	30	Used to set the TEL/LIU.
	31	Used to set the TEL/LIU.
	32	Receive data check
	33	Signal detection check
	34	Communication time measurement display
	37	Speaker sound volume adjustment
	41	CI signal check
	1	Used to execute read/write check of the RAM on the PCL board, and to display the result. (To be supported for MCU v00.45 or later)
	11	Used to set the select-in signal of the Centro port.
	14	Used to check write/comparison of flash programs.
	15	Used to check the validity of the ROM on the PCL board and the result is displayed. (To be supported for MCU v00.45 or later)
	17	Used to clear the printer section setting. (NVRAM clear)
	18	Used to clear the data area for FLASH ROM Network Scanner Application.
	20	Used to check the network connection when the scanner option is installed.



## 4. Details

### 1

1-1

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the operation of the scanner unit and its control circuit.
<b>Section</b>	Optical (Image scanning)
<b>Item</b>	Operation

#### Operation/procedure

Enter the number of operations, and set the magnification ratio and the original size.

1. Select the desired item, and press the [START] key.
  2. Enter the set value with the 10-key, and press the [START] key.
- The scanner unit operates at the speed corresponding to the set value.  
The scan counter is displayed during execution.

Set magnification ratio	25% to 400% (1% increment) (Default 100%)
Document size	Varies depending on the destination.
Set number of times	1 to 999 (0: Continuous operation)

SIMULATION 1-1  
SCANNER CHECK. SELECT 1-4, AND PRESS START.  
1: CHECK START  
2: EXEC TIMES 0  
3:PAPER SIZE 1  
4:MAGNIFICATION 100

1-2

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the operation of sensor and detector in the scanning (read) section and the related circuit.
<b>Section</b>	Optical (Image scanning)
<b>Item</b>	Operation

#### Operation/procedure

The status of sensors and detectors in the scanner section is displayed. The active sensors and detectors are highlighted.

MHPS	Mirror home position sensor
------	-----------------------------

SIMULATION 1-2  
SCANNER SENSOR CHECK  
MHPS

### 2

2-1

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the operation of the SPF/RSPF unit and the related circuit.
<b>Section</b>	SPF/RSPF
<b>Item</b>	Operation

#### Operation/procedure

Enter the number of operations, and set the magnification ratio and the original size.

1. Select the desired item, and press the [START] key.
2. Enter the set value with the 10-key, and press the [START] key.

The SPF/RSPF unit operates at the speed corresponding to the set value.

The scan counter is displayed during execution.

Set magnification ratio	50% to 200% (1% increment) (Default 100%)
Document size	Varies depending on the destination.
Duplex	Selectable only when RSPF is installed.
Set number of times	1 to 999 (0: Continuous operation)

Note: Executable only when the SPF/RSPF is installed.

SIMULATION 2-1  
SPF AGING TEST. SELECT 1-5, AND PRESS START.  
1:TEST START 2:EXEC TIMES 0 3:PAPER SIZE 1 1  
4: MAGNIFICATION 100 5:PAPER SIZE 1

2-2

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the operation of sensors and detectors in the SPF/RSPF unit and the related circuit.
<b>Section</b>	SPF/RSPF
<b>Item</b>	Operation

#### Operation/procedure

The operations of sensors and detectors in the SPF/RSPF section are displayed.

The active sensors and detectors are highlighted.  
(For the original size, the detection result of the original size displayed on the copy menu is highlighted.)

EMPS	Original empty sensor
DLS1	Original length sensor (Small)
DLS2	Original length sensor (Large)
FGOD	SPF/RSPF paper feed cover open/close sensor
DFD	SPF/RSPF paper entry sensor
RDD	SPF/RSPF original exit sensor
OPCLS	Book sensor
SWD_LEN	Original detection width sensor (Unit of 0.1mm. "Width x 10" is displayed. Example: For 300mm, 3000 is displayed.)
SWD_A/D	Original detection width sensor A/D value

SPF/RSPF width detection size (One of the following is displayed.)

A4/A3, LT/WLT, B5/B4, INV/LTR, A5/A4R, B5R, EXTRA, 8K/16K, 16KR

Note: Executable only when the SPF/RSPF is installed.

SIMULATION 2-2  
SPF SENSOR CHECK.  
EMPS DLS1 DLS2 FGOD  
DFD RDD OPCLS A3/A4  
LT/WLT B5/B4 INV/LTR A5/A4R  
B5R EXTRA 8K/16K 16KR  
SWD\_LEN: 3000  
SWD\_A/D: 760

2-3

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the operation of the loads in the SPF/RSPF unit and the control circuits.
<b>Section</b>	SPF/RSPF
<b>Item</b>	Operation

#### Operation/procedure

Select the load to be checked with the 10-key, and press the [START] key.

The motor for 10sec, the solenoid ON for 500msec, OFF for 500msec. (20 times)

Item	Content
1	DTM-F SPF/RSPF motor forward rotation
2	DTM-R SPF/RSPF motor reverse rotation
3	DFCL SPF/RSPF paper feed clutch
4	CLH SPF/RSPF PS clutch
5	GSOL Document exit gate solenoid
6	RSOL Document exit pressure solenoid

Note: Executable only when the SPF/RSPF is installed.

#### SIMULATION 2-3

SPF LOAD TEST. SELECT 1-6, AND PRESS START.

1:DTM-F 2:DTM-R 3:DFCL 4:CLH  
5:GSOL 6:RSOL

2

## 3

3-2

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the operation of sensor and detector in the finisher and the related circuit.
<b>Section</b>	Finisher
<b>Item</b>	Operation

#### Operation/procedure

Used to display the operations of sensors and detectors in the finisher section.

The active sensors and detectors are highlighted.

INPD	Finisher paper entry sensor
FWPS	Paper width sensor
JGHP1	Side guide plate HP sensor
JGHP2	Rear edge plate HP sensor
JGPD	Tray paper empty sensor
T1OD	1st tray exit sensor
T1PF	1st tray paper full sensor
PGOP	JAM processing PG open/close detection sensor
T2OD	2nd tray exit sensor
OFHP	Offset HP sensor
T2UP	Tray position sensor (upper)
T2DN	Tray position sensor (lower)
JGDSW	Tray jam processing interlock
EVRE	Lift-up drive control sensor
STHP	Staple HP sensor
READY	Self priming sensor
LSTS	Staple empty sensor
NCTS	Cartridge empty sensor
STND	Staple supply cover open/close sensor
T2PUD	2nd tray upper surface sensor

Note: Executable only when the finisher is installed.

#### SIMULATION 3-2

FINISHER SENSOR CHECK

INPD FWPS JGHP1 JGHP2 JGPD T1OD T1PF  
PGOP T2OD OFHP T2UP T2DN JGDSW EVRE  
STHP READY LSTS NCTS STND T2PUD

3-3

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the operation of the load in the finisher and the control circuit.
<b>Section</b>	Finisher
<b>Item</b>	Operation

#### Operation/procedure

Select the load to be checked with the 10-key, and press the [START] key.

The finisher main motor operates for 10sec, the staple motor 5 times, the tray lift-up motor one reciprocating operation, other motors max. 20 reciprocating operations from the home position, the solenoid repeats 500msec ON and 500msec OFF 20 times.

The staple operation motor operates only when there is no cartridge installed.

Item	Content
1	JGM1 Side guide plate drive motor
2	JGM2 Rear edge plate drive motor
3	FM-600 Finisher main motor (600dpi)
4	FM-1200 Finisher main motor (1200dpi)
5	EVM Tray lift-up motor
6	OFM Tray offset motor
7	STM Staple operation motor
8	OGSLR Transport selection gate solenoid (R)
9	OGSLL Transport selection gate solenoid (L)
10	JGSL1 Rear edge plate drive solenoid
11	JGSL2 Upper alignment plate drive solenoid
12	SHTSL Shutter drive solenoid
13	T2SCL Paper exit roller clutch
14	STGSL Paper holding solenoid

Note: Executable only when the finisher is installed.

#### SIMULATION 3-3

FINISHER LOAD TEST. SELECT 1-14, AND PRESS START.

1:JGM1 2:JGM2 3:FM-600 4:FM-1200  
5:EVM 6:OFM 7:STM 8:OGSLR  
9:OGSLL 10:JGSL1 11:JGSL2 12:SHTSL  
13:T2SCL 14:STGSL

8

3-6

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	Used to adjust the alignment position (side regulation plate, rear edge regulation plate) for each paper size. Shifts to the specified paper size position.
<b>Section</b>	Finisher
<b>Item</b>	Operation

#### Operation/procedure

After the paper size is set, the side guide plate and the rear guide plate are set.

1. Enter the desired item with the 10-key, and press the [START] key.
2. Enter the adjustment value with the 10-key, and press the [START] key.

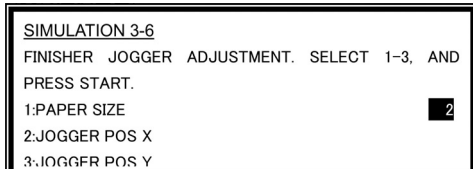
Item	Content	Setting range	Default
1	PAPER SIZE Paper size (1:A3, 2:A4, 3:B4, 4:B5, 5:A4R, 6:WLT, 7:LT, 8:LG, 9:FC, 10:LTR, 11:8K, 12:16K)	1-12	A4
2	JOGGER POS X Side guide plate	1-99	50
3	JOGGER POS Y Rear edge guide plate		

There are 6 adjustment values for the side guide plate, and 12 for the rear guide plate. The adjustment position is determined from the table below according to the paper size.

Paper size	Side guide plate adjustment value number	Adjustment value number of the rear edge guide plate
A3	1	2
A4	1	9
B4	3	3
B5	3	10

Paper size	Side guide plate adjustment value number	Adjustment value number of the rear edge guide plate
A4R	5	6
WLT	2	1
LT	2	8
LG	4	4
FC	4	5
LTR	4	7
8K	6	11
16K	6	12

Note: Executable only when the finisher is installed.



### 3-7

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	Used to adjust the offset tray operations.
<b>Section</b>	Finisher
<b>Item</b>	Operation

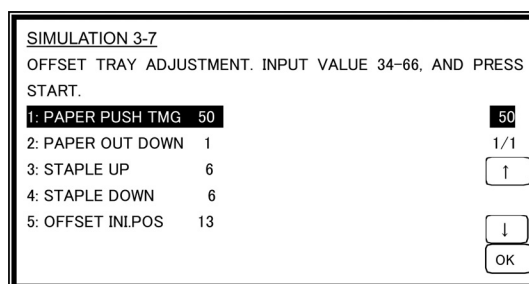
#### Operation/procedure

1. Touch the operation item to be set.
2. Enter the set value with the 10-key.

Item	Content	Installation range	Default
1 PAPER PUSH TMG	Paper holder descending timing in non-staple Used to adjust the descending timing of the paper holder lever before lift-up operation after paper exit or offset operation. (The paper holder lever prevents against paper shift in paper top surface detection and paper stacking.)	34-66	50
2 PAPER OUT DOWN	Tray descending distance after non-staple paper exit Used to adjust the offset tray descending distance after non-staple paper exit. The descending distance is the relative distance from the non-staple standby position.	0-12	1
3 STAPLE UP	Tray lift distance before staple paper exit The height of the tray standby position in stapling is changed for that in non-stapling to improve stacking capacity in stapling. (The relative distance for the height of the tray standby position in non-stapling is set.)	0-12	6
4 STAPLE DOWN	Tray descending distance after staple paper exit Used to adjust the offset tray descending distance after staple paper exit. The descending distance is the relative distance from the non-staple standby position.	0-12	6

Item	Content	Installation range	Default
5 OFFSET INI.POS	Offset tray shift position adjustment Used to shift the offset tray to the shipment position or the disassembly position. The offset tray is shifted to the specified counter position. (In the case of 0 - 94 (Shipment position)) 1) Initialize the offset tray normally. 2) The tray descends to the parameter position + 1 pulse position. 3) The tray lifts up to the specified parameter position. (Disassembly position: 94 - 99) 1) The tray descends to the bottom. * If there is some paper in the offset tray, the tray cannot descend to the specified position. Check to insure that there is no paper in the tray before execution.	0-99	13

Note: Executable only when the finisher is installed.



### 3-11

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the shifter operation. Reciprocating operations are continuously performed or the home position is checked. (The shifter is shifted to the home position or moved in one way by the specified steps.)
<b>Item</b>	Operation

#### Operation/procedure

Select item "1," and press the [START] key.

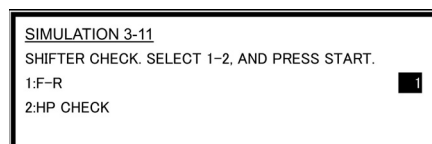
The shifter is reciprocated continuously at the specified interval.

Item	Content
1 F-R	Reciprocating operation
2 HP CHECK	Home position check

[Selection 2]

1. Select item "2," and press the [START] key.
2. Move the shifter to the home position or in one way by the specified steps with the following keys.

[*] key	Shifts the position toward R side by the specified steps.
[0] key	Shifts the position toward HP side by the specified steps.
[#] key	Shifts to F.
SFTHP	Shifter home position (At detection, highlighted)



<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the operation of sensor and detector in the option cassette and the related circuit.
<b>Section</b>	Paper feed
<b>Item</b>	Operation

**Operation/procedure**

The operating states of the sensor and the detector are displayed. (Only the installed option cassettes are displayed. For the standard tray, use SIM 30-2.)

The active sensors and detectors are highlighted.

PED2	2nd cassette paper empty sensor
LUD2	2nd cassette paper upper limit detection sensor
PFD2	2nd cassette paper pass sensor
CD2	2nd cassette empty sensor
PED3	3rd cassette paper empty sensor
LUD3	3rd cassette paper upper limit detection sensor
PFD3	3rd cassette paper pass sensor
CD3	3rd cassette empty sensor
PED4	4th cassette paper empty sensor
LUD4	4th cassette paper upper limit detection sensor
PFD4	4th cassette paper pass sensor
CD4	4th cassette empty sensor
DSWR2	2nd cassette right door detection sensor
DSWR3	3rd cassette right door detection sensor
DSWR4	4th cassette right door detection sensor

Note: Execution is possible only when the option cassette is installed.

**SIMULATION 4-2**

OPTION CASSETTE SENSOR CHECK.

PED2 LUD2 PFD2 **CD2** PED3 LUD3 PFD3 CD3  
PED4 **LUD4** PFD4 CD4 DSWR2 DSWR3 DSWR4

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the operation of the load in the option tray and the control circuit.
<b>Section</b>	Paper feed
<b>Item</b>	Operation

**Operation/procedure**

Select the load to be checked with the 10-key, and press the [START] key.

The motor for 10sec, the solenoid ON for 500msec, OFF for 500msec.

The lift-up motor operates only when the tray is opened. (20 times)

Item	Content
1	LUM2 2nd cassette lift-up motor
2	CPFC2 2nd cassette pick-up solenoid
3	CPFS2 2nd cassette paper feed clutch
4	TRC2 2nd cassette transport roller clutch
5	DM 2nd cassette paper transport motor (3rd cassette paper transport motor)
6	LUM3 3rd cassette lift-up motor
7	CPFC3 3rd cassette pick-up solenoid
8	CPFS3 3rd cassette paper feed clutch
9	TRC3 3rd cassette transport roller clutch
10	LUM4 4th cassette lift-up motor
11	CPFC4 4th cassette pick-up solenoid
12	CPFS4 4th cassette paper feed clutch

Note: Execution is possible only when the option cassette is installed.

**SIMULATION 4-3**

OPTION CASSETTE OUTPUT CHECK. SELECT 1-12, AND PRESS START.

1:LUM2 2:CPFC2 3:CPFS2 4:TRC2 5:DM **8**  
6:LUM3 7:CPFC3 8:CPFS3 9:TRC3 10:LUM4  
11:CPFC4 12:CPFS4

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the operation of the display (LED), LCD in the operation panel, and control circuit.
<b>Section</b>	Operation (screen/operation)
<b>Item</b>	Operation

**Operation/procedure**

The LCD is displayed as follows. (All LED's are ON.)

With the upper half highlighted and the lower half normally displayed, contrast changes "Standard → MAX → MIN." in every 2sec.

SIMULATION 5-1  
LCD/LED CHECK.

(6 sec later)

With the upper half normally displayed and the lower half highlighted, contrast changes "Standard → MAX → MIN." in every 2sec.

SIMULATION 5-1  
LCD/LED CHECK.

\* When returning to the sub menu selection menu, the display of the standard contrast is displayed for an instant.

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the operation of the heater lamp and the control circuit.
<b>Section</b>	Fusing
<b>Item</b>	Operation

**Operation/procedure**

1. Select the lamp to be checked with the 10-key, and press the [START] key.

ON/OFF operation of the heater lamp is repeated 5 times in an interval of 100ms/900ms.

When completing the operation, the cooling fan is rotated at a low speed.

Item Content

Item	Content
1	HL1 Heater lamp 1 (Main) operation
2	HL2 Heater lamp 2 (Sub) operation

**SIMULATION5-2**

HEATER LAMP TEST. SELECT 1-2, AND PRESS START.

1:HR1 **1**  
2:HR2

5-3

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the operation of the copy lamp and the control circuit.
<b>Section</b>	Optical (Image scanning)
<b>Item</b>	Operation

**Operation/procedure**

When the [START] key is pressed, the copy lamp is lighted for 10sec.

SIMULATION 5-3

COPY LAMP TEST. PRESS START.

6

6-1

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the operation of the loads (clutches and solenoids) in the paper transport system and the control circuit.
<b>Section</b>	Paper transport (Discharge/Switchback/Transport)
<b>Item</b>	Operation

**Operation/procedure**

1. Select the load to be checked with the 10-key, and press the [START] key.

The motor for 10sec, the solenoid ON for 500msec, OFF for 500msec. (20 times)

When the [CUSTOM SETTINGS] is pressed, the operation is interrupted.

The lift-up motor operates only when the tray is opened.

Item	Content
1 LUM1	1st cassette lift-up motor
2 CPFC1	1st cassette pick-up solenoid
3 CPFS1	1st cassette paper feed clutch
4 MPFS	Manual feed pick-up solenoid
5 RRC	Resist roller clutch
6 PPS	Separation pawl solenoid
7 OGS	Paper exit gate switching solenoid
8 LUM2	2nd cassette lift-up motor
9 CPFC2	2nd cassette pick-up solenoid
10 CPFS2	2nd cassette paper feed clutch
11 TRC2	2nd cassette transport roller clutch
12 LUM3	3rd cassette lift-up motor
13 CPFC3	3rd cassette pick-up solenoid
14 CPFS3	3rd cassette paper feed clutch
15 TRC3	3rd cassette transport roller clutch
16 LUM4	4th cassette lift-up motor
17 CPFC4	4th cassette pick-up solenoid
18 CPFS4	4th cassette paper feed clutch

The lift-up motor operates only when the tray is opened.

SIMULATION 6-1

FEED OUTPUT CHECK. SELECT 1-18, AND PRESS START.

1:LUM1 2:CPFC1 3:CPFS1 4:MPFS 5:RRC 6:  
 6:PPS 7:OGS 8:LUM2 9:CPFC2 10:CPFS2  
 11:TRC2 12:LUM3 13:CPFC3 14:CPFS3 15:TRC3  
 16:LUM4 17:CPFC4 18:CPFS4

6-2

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the operation of each fan motor and its control circuit.
<b>Section</b>	Others
<b>Item</b>	Operation

**Operation/procedure**

Select the load to be checked with the 10-key, and press the [START] key.

The selected load is operated for 10sec.

Item	Content
1 VFM	Only the fusing fan operates
2 DCFM&DCFM2	Power cooling fan, power cooling fan 2 operations
3 VFM&DCFM&DCFM2	Fusing fan, power cooling fan, and power cooling fan 2 are operated at the same time.

SIMULATION 6-2

FAN MOTOR CHECK. SELECT 1-3, AND PRESS START.

1:VFM  
 2:DCFM&DCFM2  
 3:VFM&DCFM&DCFM2

7

7-1

<b>Purpose</b>	Setting/Operation test/check
<b>Function (Purpose)</b>	Used to set the aging operation conditions.
<b>Item</b>	Operation

**Operation/procedure**

1. Select the load to be set with the 10-key.

2. Press the [START] key.

When selected without setup, the selected value is registered and highlighted. When selected with previous setup, the previous setup is canceled and it is displayed normally.

Press [CA] key, and the simulation will be terminated and the machine goes into the aging standby mode with the set content.

This setting is canceled by power OFF.

Item	Content
1 AGING	Aging enable/disable setting
2 MISFEED	Jam detection enable/disable setting
3 FUSING	Fusing operation enable/disable setting The fusing temperature is not controlled. The heater is not turned ON.
4 INTERVL	Intermittent setting (Valid only when set to AGING.)
5 WARMUP	Warm-up save setting The machine goes into the ready state only by shading, disregarding fusing and process control. After going into the ready state, normal control is performed.
6 DV CHK.	Developing unit detection enable/disable setting

\*1: When the machine exits from the fusing ignoring state, the roller may be cooled down. Therefore, reset the machine to warm up again.

When, therefore, the simulation is canceled by pressing the [CA] key or when the copy mode display is shifted to the initial menu display in the simulation mode of one page copy, the machine is reset.

Note: In SIM 7-1, pressing [CA] key terminates the simulation and the machine enters the aging mode without resetting. Therefore, to perform "4. Intermittent setup," the intermittent cycle must be set with SIM 7-6 in advance.

Reset is not performed when the machine enters the aging mode.

#### SIMULATION 7-1

AGING TEST SETTING. SELECT 1-6, AND PRESS START.

1:AGING 2:MISFEED 3:FUSING 4:INTERVL 2  
5:WARMUP 6:DV CHK.

7-6

<b>Purpose</b>	Setting/Operation test/check
<b>Function (Purpose)</b>	Used to set the cycle of intermittent aging.
<b>Item</b>	Operation

#### Operation/procedure

- Enter the interval aging cycle time (sec) with the 10-key pad. Refer to SIM 7-1.
- Press the [START] key.

When the [START] key is pressed in aging, copying is performed continuously. This simulation is used to set the time interval between copy operations in the unit of second.

This setting is valid when SIM 7-1 (Intermittent setting) is enabled.

Setting range	1-255
Default	3

#### SIMULATION 7-6

INTERVAL AGING CYCLE SETUP. INPUT TIME 1-255, AND PRESS START.

7-8

<b>Purpose</b>	Setting/Operation test/check
<b>Function (Purpose)</b>	Used to set the display of the warm-up time.
<b>Item</b>	Operation

#### Operation/procedure

- Warm-up starts by the cover open/close.  
(Can be performed repeatedly by open/close of the cover.)
- The warm-up time is counted up and displayed in the unit of sec.  
If the [CA] key is pressed at this time, count-up is interrupted to terminate the simulation. (However, warm-up is continued.)
- After completion of warming up, "WARM UP COMPLETED" is displayed and the control returns to the initial screen.

#### SIMULATION 7-8

WARM UP TIME DISPLAY.  
PLEASE COVER OPEN AND CLOSE.

8

8-1

<b>Purpose</b>	Adjustment/Operation test/check
<b>Function (Purpose)</b>	Used to check and adjust the operation of the developing bias voltage in each copy mode and the control circuit.
<b>Section</b>	Image process (Photoconductor/Developing/Transfer/Cleaning) Developer/Toner hopper

#### Operation/procedure

- Touch the exposure mode to be changed.  
The current set value is displayed.
- Enter the set value with the 10-key.
- Press the [START] key.

Output is made with the entered value, and the display returns to the original state.

Item	Content	Installation range	Default
1 AE	AE (*)	200-550	400 (-400V)
2 TEXT	Character		450 (-450V)
3 TEXT/PHOTO	Character/Photo		450 (-450V)
4 PHOTO	Photo		450 (-450V)
5 SUPER/PHOTO	Super photo		400 (-400V)
6 TONER SAVE	Toner save		376 (-376V)

(\*) Linked with the destinations of SIM 26-6.

Linked with the auto exposure mode of SIM 46-19-1.

The minimum increment is 2V.

The result of (Set value - 199) / 2 is stored in the EEPROM.

When reading a value from the EEPROM, the value of (EEP value \*2) + 200 is used as the set value.

Therefore, the set value entered must be an even number. If an odd number is entered the entered odd number + 1 is displayed after pressing [START] key.

#### SIMULATION 8-1

DV BIAS COPY SETTING. INPUT VALUE 200-550, AND PRESS START.

1: AE 400 400  
2: TEXT 450 1/1  
3: TEXT/PHOTO 450  
4: PHOTO 450  
5: SUPER/PHOTO 400  
6: TONER SAVE 376

8-2

<b>Purpose</b>	Adjustment/Operation test/check
<b>Function (Purpose)</b>	Used to check and adjust the operation of the main charger grid voltage (high mode) in each copy mode and the control circuit.
<b>Section</b>	Image process (Photoconductor/Developing/Transfer/Cleaning) Photo conductor

#### Operation/procedure

- Touch the exposure mode to be changed.  
The current set value is displayed.
- Enter the set value with the 10-key.
- Press the [START] key.

Output is made with the entered value for 30sec, and the display returns to the original state.

Item	Content	Setting range	Default
1 AE	AE (*)	1-8	3 (-530V)
2 TEXT	Character		5 (-580V)
3 TEXT/PHOTO	Character/Photo		5 (-580V)
4 PHOTO	Photo		5 (-580V)
5 SUPER/PHOTO	Super photo		3 (-530V)
6 TONER SAVE	Toner save		2 (-505V)

Min. unit: -25V increment

(\*) Linked with the destinations of SIM 26-6.

Linked with the auto exposure mode of SIM 46-19-1.

NO.	Set value	Grid High	Grid Low
1	480	-480V	-350V
2	505	-505V	-375V
3	530	-530V	-400V

NO.	Set value	Grid High	Grid Low
4	555	-555V	-425V
5	580	-580V	-450V
6	605	-605V	-475V
7	630	-630V	-500V
8	655	-655V	-525V

\*1. The negative value of the set value corresponds to the grid high output voltage.

\*2. The set values can be selected from the above 8 patterns only.

\*3. The selected pattern determines the grid high voltage and the grid low voltage.

If, for example, the grid high voltage is set to -480V (pattern 1), the grid low voltage is -350V.

**SIMULATION 8-2**  
MHV(H) COPY SETTING. INPUT VALUE 1-8, AND PRESS START.

1: AE	3	
2: TEXT	5	
3: TEXT/PHOTO	5	1/1
4: PHOTO	5	↑
5: SUPER/PHOTO	3	
6: TONER SAVE	2	

↓ OK

### 8-3

<b>Purpose</b>	Adjustment/Operation test/check
<b>Function (Purpose)</b>	Used to check and adjust the operation of the main charger grid voltage (low mode) in each copy mode and the control circuit.
<b>Section</b>	Image process (Photoconductor/Developing/Transfer/Cleaning) Photo conductor

#### Operation/procedure

1. Touch the exposure mode to be changed.  
The current set value is highlighted.
2. Enter the set value with the 10-key.
3. Press the [START] key.

Output is made with the entered value for 30sec, and the display returns to the original state.

Item	Content	Setting range	Default
1 AE	AE (*)	1-8	3 (-400V)
2 TEXT	Character		5 (-450V)
3 TEXT/PHOTO	Character/Photo		5 (-450V)
4 PHOTO	Photo		5 (-450V)
5 SUPER/PHOTO	Super photo		3 (-400V)
6 TONER SAVE	Toner save		2 (-375V)

Min. unit: -25V increment

(\*) Linked with the destinations of SIM 26-6.

Linked with the auto exposure mode of SIM 46-19-1.

NO.	Set value	Grid High	Grid Low
1	480	-480V	-350V
2	505	-505V	-375V
3	530	-530V	-400V
4	555	-555V	-425V
5	580	-580V	-450V
6	605	-605V	-475V
7	630	-630V	-500V
8	655	-655V	-525V

\*1. The negative value of the set value corresponds to the grid high output voltage.

\*2. The set values can be selected from the above 8 patterns only.

\*3. The selected pattern determines the grid high voltage and the grid low voltage.

If, for example, the grid high voltage is set to -480V (pattern 1), the grid low voltage is -350V.

**SIMULATION 8-3**  
MHV(L) COPY SETTING. INPUT VALUE 1-8, AND PRESS START.

1: AE	3	
2: TEXT	5	
3: TEXT/PHOTO	5	1/1
4: PHOTO	5	↑
5: SUPER/PHOTO	3	
6: TONER SAVE	2	

↓ OK

### 8-10

<b>Purpose</b>	Adjustment/Operation test/check
<b>Function (Purpose)</b>	Used to check and adjust the operation of the developing bias voltage in each printer mode and the control circuit.
<b>Section</b>	Image process (Photoconductor/Developing/Transfer/Cleaning) Developer/Toner hopper

#### Operation/procedure

1. Touch the exposure mode to be changed.  
The current set value is displayed.
2. Enter the set value with the 10-key.
3. Press the [START] key.

Output is made with the entered value for 30sec, and the display returns to the original state.

Item	Content	Installation range	Default
1 DENS1(600)	Density 1 (600dpi)	200-550	400 (-400V)
2 DENS2(600)	Density 2 (600dpi)		450 (-450V)
3 DENS3(600)	Density 3 (600dpi)		450 (-450V)
4 DENS4(600)	Density 4 (600dpi)		450 (-450V)
5 DENS5(600)	Density 5 (600dpi)		500 (-500V)
6 TS(600)	Toner save (600dpi)		350 (-350V)
7 DENS1(1200)	Density 1 (1200dpi)		300 (-300V)
8 DENS2(1200)	Density 2 (1200dpi)		350 (-350V)
9 DENS3(1200)	Density 3 (1200dpi)		376 (-376V)
10 DENS4(1200)	Density 4 (1200dpi)		426 (-426V)
11 DENS5(1200)	Density 5 (1200dpi)		500 (-500V)

The minimum increment is 2V.

The result of (Set value - 199) / 2 is stored in the EEPROM.

When reading a value from the EEPROM, the value of (EEP value \*2) + 200 is used as the set value.

Therefore, the set value entered must be an even number. If an odd number is entered the entered odd number + 1 is displayed after pressing [START] key.

**SIMULATION 8-10**  
DV BIAS PRINTER SETTING. INPUT VALUE 200-550, AND PRESS START.

1: DENS1(600)	400	2: DENS2(600)	450	400
3: DENS3(600)	450	4: DENS4(600)	450	1/1
5: DENS5(600)	500	6: TS (600)	350	↑
7: DENS1(1200)	300	8: DENS2(1200)	350	
9: DENS3(1200)	376	10: DENS4(1200)	426	↓
11: DENS5(1200)	500			OK

<b>Purpose</b>	Adjustment/Operation test/check
<b>Function (Purpose)</b>	Used to check and adjust the operation of the main charger grid voltage (high mode) in each printer mode and the control circuit.
<b>Section</b>	Image process (Photoconductor/Developing/Transfer/Cleaning) Photo conductor

**Operation/procedure**

1. Touch the exposure mode to be changed.  
The current set value is highlighted.
2. Enter the set value with the 10-key.
3. Press the [START] key.

Output is made with the entered value for 30sec, and the display returns to the original state.

Item	Content	Installation range	Default
1 DENS1(600)	Density 1 (600dpi)	1-8	5 (–580V)
2 DENS2(600)	Density 2 (600dpi)		5 (–580V)
3 DENS3(600)	Density 3 (600dpi)		5 (–580V)
4 DENS4(600)	Density 4 (600dpi)		5 (–580V)
5 DENS5(600)	Density 5 (600dpi)		7 (–630V)
6 TS(600)	Toner save (600dpi)		3 (–530V)
7 DENS1(1200)	Density 1 (1200dpi)		1 (–480V)
8 DENS2(1200)	Density 2 (1200dpi)		3 (–530V)
9 DENS3(1200)	Density 3 (1200dpi)		4 (–555V)
10 DENS4(1200)	Density 4 (1200dpi)		5 (–580V)
11 DENS5(1200)	Density 5 (1200dpi)		7 (–630V)

Min. unit: 25V increment

NO.	Set value	Grid High	Grid Low
1	480	–480V	–350V
2	505	–505V	–375V
3	530	–530V	–400V
4	555	–555V	–425V
5	580	–580V	–450V
6	605	–605V	–475V
7	630	–630V	–500V
8	655	–655V	–525V

- \*1. The negative value of the set value corresponds to the grid high output voltage.
- \*2. The set values can be selected from the above 8 patterns only.
- \*3. The selected pattern determines the grid high voltage and the grid low voltage.  
If, for example, the grid high voltage is set to –480V (pattern 1), the grid low voltage is –350V.

<b>SIMULATION 8-11</b>			
MHV(H) PRINTER SETTING. INPUT VALUE 1-8, AND PRESS START.			
1: DENS1(600)	5	2: DENS2(600)	5
3: DENS3(600)	5	4: DENS4(600)	5
5: DENS5(600)	7	6: TS (600)	3 1/1
7: DENS1(1200)	1	8: DENS2(1200)	3
9: DENS3(1200)	4	10: DENS4(1200)	5
11: DENS5(1200)	7		
			↓
			OK

<b>Purpose</b>	Adjustment/Operation test/check
<b>Function (Purpose)</b>	Used to check and adjust the operation of the main charger grid voltage (low mode) in each printer mode and the control circuit.
<b>Section</b>	Image process (Photoconductor/Developing/Transfer/Cleaning) Photo conductor

**Operation/procedure**

1. Touch the exposure mode to be changed.  
The current set value is highlighted.
2. Enter the set value with the 10-key.
3. Press the [START] key.

Output is made with the entered value for 30sec, and the display returns to the original state.

Item	Content	Installation range	Default
1 DENS1(600)	Density 1 (600dpi)	1-8	5 (–450V)
2 DENS2(600)	Density 2 (600dpi)		5 (–450V)
3 DENS3(600)	Density 3 (600dpi)		5 (–450V)
4 DENS4(600)	Density 4 (600dpi)		5 (–450V)
5 DENS5(600)	Density 5 (600dpi)		7 (–500V)
6 TS(600)	Toner save (600dpi)		3 (–400V)
7 DENS1(1200)	Density 1 (1200dpi)		1 (–350V)
8 DENS2(1200)	Density 2 (1200dpi)		3 (–400V)
9 DENS3(1200)	Density 3 (1200dpi)		4 (–425V)
10 DENS4(1200)	Density 4 (1200dpi)		5 (–450V)
11 DENS5(1200)	Density 5 (1200dpi)		7 (–500V)

Min. unit: 25V increment

NO.	Set value	Grid High	Grid Low
1	480	–480V	–350V
2	505	–505V	–375V
3	530	–530V	–400V
4	555	–555V	–425V
5	580	–580V	–450V
6	605	–605V	–475V
7	630	–630V	–500V
8	655	–655V	–525V

- \*1. The negative value of the set value corresponds to the grid high output voltage.
- \*2. The set values can be selected from the above 8 patterns only.
- \*3. The selected pattern determines the grid high voltage and the grid low voltage.  
If, for example, the grid high voltage is set to –480V (pattern 1), the grid low voltage is –350V.

<b>SIMULATION 8-12</b>			
MHV(L) PRINTER SETTING. INPUT VALUE 1-8, AND PRESS START.			
1: DENS1(600)	5	2: DENS2(600)	5
3: DENS3(600)	5	4: DENS4(600)	5
5: DENS5(600)	7	6: TS (600)	3 1/1
7: DENS1(1200)	1	8: DENS2(1200)	3
9: DENS3(1200)	4	10: DENS4(1200)	5
11: DENS5(1200)	7		
			↓
			OK

<b>Purpose</b>	Adjustment/Operation test/check
<b>Function (Purpose)</b>	Used to check and adjust the operation of the developing bias voltage in FAX mode and the control circuit.
<b>Section</b>	Image process (Photoconductor/Developing/Transfer/Cleaning) Developer/Toner hopper

**Operation/procedure**

1. Enter the set value with the 10-key.
2. Press the [START] key.

Output is made with the entered value for 30sec. and the display returns to the original state.

Setting range	200-550
Default	426



The minimum increment is 2V.

The result of (Set value – 199) / 2 is stored in the EEPROM.

When reading a value from the EEPROM, the value of (EEP value \*2) + 200 is used as the set value.

Therefore, the set value entered must be an even number. If an odd number is entered the entered odd number + 1 is displayed after pressing [START] key.

#### SIMULATION 8-13

DV BIAS FAX SETTING. INPUT VALUE 200-550, AND PRESS START.

426

8-14

<b>Purpose</b>	Adjustment/Operation test/check
<b>Function (Purpose)</b>	Used to check and adjust the operation of the main charger grid voltage (high mode) in FAX mode and the control circuit.
<b>Section</b>	Image process (Photoconductor/Developing/Transfer/Cleaning) Photo conductor

#### Operation/procedure

1. Enter the set value with the 10-key.
2. Press the [START] key.

Output is made with the entered value for 30sec. and the display returns to the original state.

Setting range	1-8
Default	5 (480-650)

NO.	Set value	Grid High	Grid Low
1	480	–480V	–350V
2	505	–505V	–375V
3	530	–530V	–400V
4	555	–555V	–425V
5	580	–580V	–450V
6	605	–605V	–475V
7	630	–630V	–500V
8	655	–655V	–525V

Min. unit: 25V increment

- \*1. The negative value of the set value corresponds to the grid high output voltage.
- \*2. The set values can be selected from the above 8 patterns only.
- \*3. The selected pattern determines the grid high voltage and the grid low voltage.  
If, for example, the grid high voltage is set to –480V (pattern 1), the grid low voltage is –350V.

#### SIMULATION 8-14

MHV(H) FAX SETTING. INPUT VALUE 1-8, AND PRESS START.

5

8-15

<b>Purpose</b>	Adjustment/Operation test/check
<b>Function (Purpose)</b>	Used to check and adjust the operation of the main charger grid voltage (low mode) in FAX mode and the control circuit.
<b>Section</b>	Image process (Photoconductor/Developing/Transfer/Cleaning) Photo conductor

#### Operation/procedure

1. Enter the set value with the 10-key.
2. Press the [START] key.

Output is made with the entered value for 30sec. and the display returns to the original state.

Setting range	1-8
Default	5

NO.	Set value	Grid High	Grid Low
1	480	–480V	–350V
2	505	–505V	–375V
3	530	–530V	–400V
4	555	–555V	–425V
5	580	–580V	–450V
6	605	–605V	–475V
7	630	–630V	–500V
8	655	–655V	–525V

Min. unit: 25V increment

- \*1. The negative value of the set value corresponds to the grid high output voltage.
- \*2. The set values can be selected from the above 8 patterns only.
- \*3. The selected pattern determines the grid high voltage and the grid low voltage.  
If, for example, the grid high voltage is set to –480V (pattern 1), the grid low voltage is –350V.

#### SIMULATION 8-15

MHV(L) FAX SETTING. INPUT VALUE 1-8, AND PRESS START.

5

9

9-1

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check and adjust the operation of the load (motor) in the duplex section and the control circuit.
<b>Section</b>	Duplex
<b>Item</b>	Operation

#### Operation/procedure

1. Select the operation mode with the 10-key.
2. Press the [START] key.

The operation is performed for 30sec, and the display returns to the original state.

Item	Content
1	DMF600 Duplex motor/Duplex 2 motor forward rotation (600dpi)
2	DMF1200 Duplex motor/Duplex 2 motor forward rotation (1200dpi)
3	DMR600 Duplex motor/Duplex 2 motor reverse rotation (600dpi)
4	DMR1200 Duplex motor/Duplex 2 motor reverse rotation (1200dpi)

#### SIMULATION 9-1

DUPLEX MOTOR CHECK. SELECT 1-4, AND PRESS START.  
1:DMF600 2:DMF1200 3:DMR600  
4:DMR1200

2

9-4

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Duplex motor RPM setting
<b>Section</b>	Duplex
<b>Item</b>	Operation

## Operation/procedure

Enter the set value with the 10-key.

When the duplex motor setting is made, the duplex 2motor is also set accordingly.

Setting range	1-13
Default	3

### SIMULATION 9-4

DUPLEX MOTOR SPEED SETTING. INPUT VALUE 1-13, AND PRESS START.

3

9-5

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	Used to adjust the timing of switching from normal rotation to reverse rotation or from reverse rotation to normal rotation of the duplex motor.

## Operation/procedure

1. Touch the item to set.
2. Enter the set value with the 10-key, and press the [START] key.

Item	Installation range	Default
1 600dpi	18-76	18
2 1200dpi		50

### SIMULATION 9-5

DUPLEX MOTOR SW BACK TIME SETTING. INPUT VALUE 18-76, AND PRESS START.

1: 600dpi 18  
2: 1200dpi 50

18

1/1

↑

↓

OK

# 10

10-0

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the operation of the toner motor and its control circuit.
<b>Section</b>	Image process (Photoconductor/Developing/Transfer/Cleaning) Developer/Toner hopper
<b>Item</b>	Operation

## Operation/procedure

Press the [START] key and operate the toner motor for 30 sec.

### SIMULATION 10

TONER MOTOR ACTIVATION. PRESS START.

# 14

14-0

<b>Purpose</b>	Clear/Cancel (Trouble etc.)	
<b>Function (Purpose)</b>	Used to cancel excluding the self-diag U2/PF troubles.	
<b>Item</b>	Trouble	Error

## Operation/procedure

1. Press the [START] key.
2. When "1: YES" is selected, troubles other than U2 and PF are canceled. (When "2: NO" is selected, the simulation is canceled.)

### SIMULATION 14

TROUBLE CANCELLATION(WITHOUT U2, PF). PRESS START.

# 16

16-0

<b>Purpose</b>	Clear/Cancel (Trouble etc.)	
<b>Function (Purpose)</b>	Used to cancel the self-diag U2 trouble.	
<b>Item</b>	Trouble	Error

## Operation/procedure

1. Press the [START] key.
2. When "1: YES" is selected, U2 trouble is canceled. (When "2: NO" is selected, the simulation is canceled.)

### SIMULATION 16

U2 TROUBLE CANCELLATION. PRESS START.

# 17

17-0

<b>Purpose</b>	Cancel (Trouble, etc)	
<b>Function (Purpose)</b>	Used to cancel the self diag "PF" trouble.	
<b>Item</b>	Trouble	Error

## Operation/Procedure

1. Press the [START] key.
2. When "1: YES" is selected, PF trouble is canceled. (When "2: NO" is selected, the simulation is canceled.)

### SIMULATION 17

PF TROUBLE CANCELLATION. PRESS START.

# 21

21-1

<b>Purpose</b>	Setting	
<b>Function (Purpose)</b>	Used to set the maintenance cycle.	
<b>Item</b>	Specifications	Counter

## Operation/procedure

1. Enter the set value with the 10-key.
2. Press the [START] key.

Item	Content
0	5K
1	10K
2	20K
3	25K
4	50K
5	75K (Default)
6	FREE

### SIMULATION 21-1

MAINTENANCE CYCLE SETUP. SELECT 0-6, AND PRESS START.

0:5K  
1:10K  
2:20K  
3:25K  
4:50K  
5:75K  
6:FREE

5

22

22-1

<b>Purpose</b>	Adjustment/setting/operation data output/check (display/print)
<b>Function (Purpose)</b>	Used to check the counter value of each section.
<b>Item</b>	Counter

## Operation/procedure

Each counter is displayed.

TOTAL	Total
MAINTENANCE	Maintenance
DEVE	Developer counter *1
DRUM	Drum counter
COPY	Copy counter
PRINTER	Printer counter
IMC	IMC counter
DUPLEX	Duplex counter
OTHERS	The other counters
FAX SEND	FAX Send counter
FAX RCV	FAX receive counter
FAX OUTPUT	FAX print counter

The counter display is in 7 digits.

### SIMULATION 22-1

COUNTER DATA DISPLAY.

TOTAL : nnnnnnn MAINTENANCE : nnnnnnn  
DEVE : nnnnnnn DRUM : nnnnnnn  
COPY : nnnnnnn PRINTER : nnnnnnn  
IMC : nnnnnnn DUPLEX : nnnnnnn  
OTHERS : nnnnnnn FAX SEND : nnnnnnn  
FAX RCV : nnnnnnn FAX OUTPUT : nnnnnnn

22-2

<b>Purpose</b>	Adjustment/setting/operation data output/check (display/print)
<b>Function (Purpose)</b>	Used to check the total numbers of misfeed and troubles. (When the number of misfeed is considerably great, it is judged as necessary for repair. The misfeed rate is obtained by dividing this count value with the total counter value.)
<b>Item</b>	Trouble

## Operation/procedure

Each counter data are displayed.

PAPER JAM	JAM counter
SPF/RSPF JAM	SPF/RSPF JAM counter
TROUBLE	Trouble counter

The counter display is in 7 digits.

### SIMULATION 22-2

JAM/TROUBLE COUNTER DATA DISPLAY.

PAPER JAM : nnnnnnn  
SPF JAM : nnnnnnn  
TROUBLE : nnnnnnn

22-3

<b>Purpose</b>	Adjustment/setting/operation data output/check (display/print)
<b>Function (Purpose)</b>	Used to check the misfeed positions and the number of misfeed at each position. (When the number of misfeed is considerably great, it can be judged as necessary for repair.)
<b>Item</b>	Trouble Mis-feed

## Operation/procedure

The misfeed history is displayed in the sequence of recentness by the name of sensors and detectors. Max. 40 items of information can be stored in memory. (The old ones are deleted sequentially.) The trouble section may be determined by the data.

(Jam cause code)

Item	Jam contents
TRAY1	1st cassette pick-up miss
TRAY2	2nd cassette pick-up miss
TRAY3	3rd cassette pick-up miss
TRAY4	4th cassette pick-up miss
BPT	Multi manual feed pick-up miss
PPD1_ND	Paper-in sensor lead edge jam
PPD1_ST	Paper-in sensor rear edge jam
PPD1_DUP	Paper-in sensor reverse jam
PPD2_ND	Duplex sensor lead edge jam
PPD2_ST	Duplex sensor rear edge jam
POD2_ND	Upper stage paper exit lead edge jam
POD2_ST	Upper stage paper exit rear edge jam
POD1_ND	Lower stage paper exit lead edge jam
POD1_ST	Lower stage paper exit rear edge jam
PINT_SHORT	Abnormality between PS papers.
PFD2_ND	2nd paper pass lead edge jam
PFD2_ST	2nd paper pass rear edge jam
PFD3_ND	3rd paper pass lead edge jam
PFD3_ST	3rd paper pass rear edge jam
PFD4_ND	4th paper pass lead edge jam
PFD4_ST	4th paper pass rear edge jam
SIZE_SHORT	Duplex short scale error
FIN_INPDND	Finisher paper entry jam
FIN_T10D	Finisher escape tray jam
FIN_T20D	Finisher offset tray jam
FIN_STPL	Finisher staple tray jam
PPD1_ND2	Reverse sensor lead edge jam
PPD1_ST2	Reverse sensor rear edge jam

#### SIMULATION 22-3

##### PAPER JAM HISTORY.

XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX  
XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX  
XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX

22-4

<b>Purpose</b>	Adjustment/setting/operation data output/check (display/print)
<b>Function (Purpose)</b>	Used to check the total trouble (self diag) history.
<b>Item</b>	Trouble

#### Operation/procedure

The trouble error codes are displayed in the sequence of the latest one first. Max. 40 items of information are stored. (Older ones are deleted in sequence.) The machine condition can be estimated by this data.

#### SIMULATION 22-4

##### TROUBLE HISTORY.

XX-XX XX-XX XX-XX XX-XX XX-XX XX-XX  
XX-XX XX-XX XX-XX XX-XX XX-XX XX-XX  
XX-XX XX-XX XX-XX XX-XX XX-XX XX-XX

22-5

<b>Purpose</b>	Adjustment/Setting/Check
<b>Function (Purpose)</b>	Used to check the ROM version of each unit (section).
<b>Item</b>	Software

#### Operation/procedure

Used to display the ROM version of each section.

[Display example]

ROM version 1.250 → [1.25] (up to 2 decimal places)

The display of the protocol monitor and the soft SW follows this display.

S/N	Machine serial number
MCU	Main Control Unit
IMC	IMC
OPE	Panel + Panel label code
PRINTER	PRINTER
NIC	NIC (For the Soft Nic, the Soft Nic version is displayed. When the AR-NC5 is installed, the AR-NC5J version is displayed.)
FINISHER	FINISHER
FAX	FAX

If it is not installed, "-----" is displayed.

[Label code display]

Contents of "XXX" section on the display below

Panel display	Destination	Selection code	Panel software support language
JPN	Japan		Japanese, American English, English
EFS	SEC	AJ/AM	American English, English, French, Spanish
	SECL	AL/AC	
	SUK	BK/BB	
EEU	SEEG/SEA/East Europe, etc.	GG/GD	English, German, Polish, Czech, Hungarian, Greek, Turkish, Russian, French, Italian, Slovak

Panel display	Destination	Selection code		Panel software support language
NEU	SEF/ SEES/ SEIS/SEN, etc.	BG/DG/ BD/DD		English, German, French, Spanish, Dutch, Italian, Portuguese, Swedish, Norwegian, Finnish, Danish
	SCA/SCNZ	BA/BN		American English, English, French, Spanish
	Distributor area			
CHN	SOCC	BZ	UE5	Simplified Chinese, American English, English
TWN	Taiwan	BE/BT	UT1	Traditional Chinese (Local support), American English, English
EFS *1	Special countries			American English, English, French, Spanish, Hebrew (Local support)

\*1: Display at the current state

#### SIMULATION 22-5

##### ROM VERSION DATA DISPLAY.

S/N :0000000000  
MCU :00.00  
IMC :00.00  
OPE :00.00 XXX  
PRINTER :00.00  
NIC :00.00  
FINISHER:00.00  
FAX :00.00

Panel label code

22-6

<b>Purpose</b>	Adjustment/setting/operation data output/check (display/print)	
<b>Function (Purpose)</b>	Used to print each key operator setting, the account information, and the machine adjustment values.	
<b>Item</b>	Data	Setting/adjustment data

#### Operation/Procedure

(Initial screen)

The currently set value is highlighted beside the adjustment item.

1. Select the adjustment item with the 10-key.
2. Press the [START] key.  
The display is shifted to the copy menu and the set value is stored.
3. Select the paper feed tray and the print density.
4. Press the [START] key.  
Copying is started. (Printing at 1200dpi cannot be made.)

After canceling a jam (After picking up, the [C] key is invalid.)

When the other information is repeatedly printed, the display may show the message, "Remove original from original table." However, the operation is performed normally.

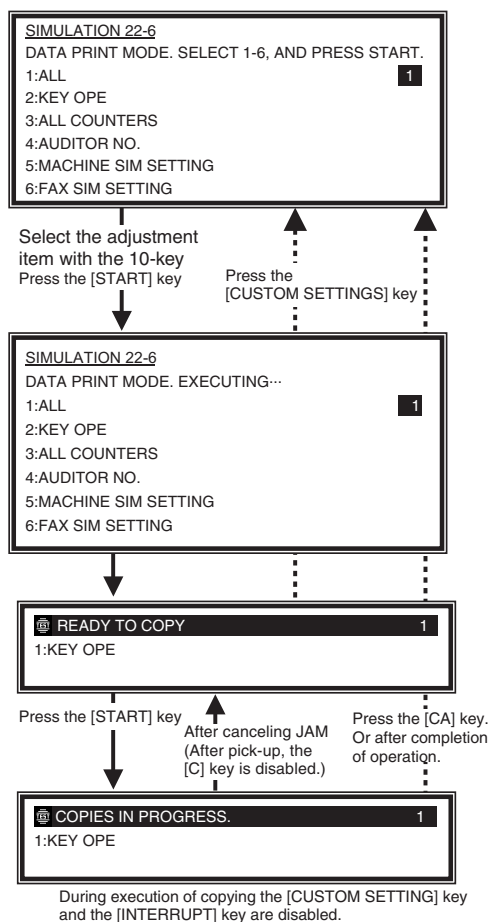
Item	Content
1 ALL	All lists group print
2 KEY OPE	Key operator information list
3 ALL COUNTERS	List of total number of prints
4 AUDITOR NO.	Department number list
5 MACHINE SIM SETTING	Machine simulation setting list
6 FAX SIM SETTING*1	FAX simulation setting list (Only when the FAX board is installed. The display does not go to the print data transfer display, but to the FAX SIM menu.)

\* When the IMC board is not installed, key input is disabled.

\* Duplex print cannot be made.

\* For the FAX SIM setting list, the display and the operating procedures differ.

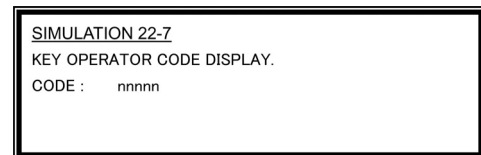
Note: When the simulation is canceled, the display returns to the original state but the machine is not reset.



<b>Purpose</b>	User data output/Check (Display/Print)	
<b>Function (Purpose)</b>	Used to display the key operator code. (Use when the customer key operator code is forgotten.)	
<b>Item</b>	Data	User data

#### Operation/procedure

Used to display the key operator code.



<b>Purpose</b>	Adjustment/setting/operation data output/check (display/print)	
<b>Function (Purpose)</b>	Used to display the original, staple counter.	
<b>Item</b>	Counter	

#### Operation/procedure

Each counter is displayed.

SPF	SPF/RSPF counter
SCAN	Scan counter
STAPLE	Stapler counter

The counter display is in 7 digits.

<b>SIMULATION 22-8</b>	
ORG./STAPLE COUNTER DATA DISPLAY.	
SPF	: nnnnnnn
SCAN	: nnnnnnn
STAPLE	: nnnnnnn

<b>22-9</b>	
<b>Purpose</b>	Adjustment/setting/operation data output/check (display/print)
<b>Function (Purpose)</b>	Used to check the number of use of each paper feed section. (the number of prints)
<b>Section</b>	Paper feed
<b>Item</b>	Counter

#### Operation/procedure

Used to display each paper feed counter.

BYPASS	Manual feed counter	TRAY3	Tray 3 counter
TRAY1	Tray 1 counter	TRAY4	Tray 4 counter
TRAY2	Tray 2 counter		

The counter display is in 7 digits.

<b>SIMULATION 22-9</b>	
PAPER FEED COUNTER DATA DISPLAY.	
BYPASS	: nnnnnnn
TRAY1	: nnnnnnn
TRAY2	: nnnnnnn
TRAY3	: nnnnnnn
TRAY4	: nnnnnnn

22-10		
Purpose	Adjustment/setting/operation data output/check (display/print)	
Function (Purpose)	Used to check the system configuration.	
Item	Specifications	Option

#### Operation/procedure

The detected machine composition is displayed.

(The job separator cannot be detected. Based on SIM 26-1 setting.)

Item	Display items
SPEED	23CPM/27CPM/26CPM
DF	NONE/[1: SPF]/[2: RSPF]
OUTPUT	NONE/[3: Finisher]/[4: Job separator]
CASSETTE1	NONE/[5: One-step paper feed unit]
CASSETTE2	NONE/[6: Two-step paper feed unit]
IMC MEM	NONE/Expansion memory capacity (MB)
PRINTER	NONE/[7: PRINTER]
PS3	NONE/[8: PS3]
NIC	NONE/[9: NIC]
SCANNER	NONE/[10: SCANNER]
FAX	NONE/[11: FAX]
FAX MEM	NONE/Memory capacity (MB)
HAND SET	NONE/[12: Handset]

NONE: When it is not installed, "- - - - -" is displayed.

[ ]: Shows the product code in the list below.

No.	Item	Model code
1	RSPF	AR-RP7
2	Finisher	AR-FN5N AR-F14 (Saddle finisher)
3	Job separator	AR-TR3
4	1 tray paper feed unit	AR-D21 (*1)
5	2 tray paper feed unit	AR-D22 (*1)
6	PRINTER	AR-P17
7	PS3	AR-PK1
8	NIC	AR-NC5J
9	SCANNER	AR-NS2
10	FAX	AR-FX7
11	Handset	AR-HN4

\*1: The number of installed units is displayed beside the model code.

For the cassettes, only the option cassette is displayed.

For the job separator, the printer, and the PS3, which are provided as standard provision, and when the GDI is installed, they are displayed as STANDARD.

For the scanner, however, even though it is a standard unit, its model name is displayed. For the NIC, when the SoftNic is installed, it is not displayed. When the NIC board is installed, its model name is displayed.

```
SIMULATION 22-10
SYSTEM INFORMATION.
SPEED   : XXXXXXXX   DF      : XXXXXXXX
OUTPUT  : XXXXXXXX   CASSETTE1: XXXXXXXX
CASSETTE2: XXXXXXXX   IMC MEM : XXXXXXXX
PRINTER : XXXXXXXX   PS3      : XXXXXXXX
NIC      : XXXXXXXX   SCANNER  : XXXXXXXX
FAX      : XXXXXXXX   FAX MEM  : XXXXXXXX
HAND SET: XXXXXXXX
```

22-11

<b>Purpose</b>	Adjustment/setting/operation data output/check (display/print)
<b>Function (Purpose)</b>	Used to display the FAX send/receive counter (FAX reception and print counter).
<b>Section</b>	FAX
<b>Item</b>	Counter

#### Operation/procedure

Used to display the FAX send/receive counter.

FAX SEND PAGE/TIME	FAX send page and time
FAX RECEIVE PAGE/TIME	FAX receive page and time
FAX OUTPUT	FAX output (number of print)

The counter display is in 7 digits.

Note: Executable only when the FAX is installed.

```
SIMULATION 22-11
FAX COUNTER DATA DISPLAY.
FAX SEND   PAGE : ***** TIME : hhhhhhhh : mm : ss
FAX RECEIVE PAGE : ***** TIME : hhhhhhhh : mm : ss
FAX OUTPUT : *****
```

22-12

<b>Purpose</b>	Adjustment/setting/operation data output/check (display/print)	
<b>Function (Purpose)</b>	Used to check the misfeed positions and the number of misfeed at each position. (When the number of misfeed is considerably great, it can be judged as necessary for repair.)	
<b>Section</b>	SPF/RSPF	
<b>Item</b>	Trouble	Misfeed

#### Operation/procedure

Used to display the SPF/RSPF jam history data sequentially from the latest one.

Forty SPF/RSPF jam histories are displayed sequentially from the latest.

Error code	Name	Sensor name	Paper Reached/ Not Reached to the sensor
DFD_ND	SPF/RSPF paper in lead edge jam	SPF P-IN sensor	Not Reached
DFD_ST	SPF/RSPF paper in rear edge jam	SPF P-IN sensor	Reached
RDD_ND	SPF/RSPF paper out lead edge jam	SPF P-IN sensor	Reached, P_OUT Not Reached
RDD_ST	SPF/RSPF paper out rear edge jam	SPF P-OUT sensor	Reached, P_IN passed (OFF)
JAM_REV	SPF/RSPF duplex reverse jam	SPF P-IN sensor	Not Reached (Paper after reversing)
ORG_SHORT	SPF/RSPF short size error	SPF P-IN sensor	Passed (OFF at JAM)
ORG_LONG	SPF/RSPF long size error	SPF P-OUT sensor	Reached
		SPF P-IN sensor	Reached

```
SIMULATION 22-12
SPF JAM HISTORY.
XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX
XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX
XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX XXXXX
```

22-13

<b>Purpose</b>	Adjustment/setting/operation data output/check (display/print)
<b>Function (Purpose)</b>	Used to display the CRUM type.
<b>Item</b>	Specifications

#### Operation/Procedure

Used to display the CRUM type.

Item	Content
00	Not fixed.
01	AR-A
02	AR-B
03	AR-C
04	DM (VER)
05	DM (WEB)
06	CHINA
99	Conversion completed.

```
SIMULATION 22-13
CRUM TYPE DISPLAY.
CRUM TYPE   nn
```

22-19

<b>Purpose</b>	Adjustment/setting/operation data output/check (display/print)
<b>Function (Purpose)</b>	Used to display the scanner counter in the network scanner mode.
<b>Section</b>	Network scanner
<b>Item</b>	Counter

#### Operation/procedure

Used to display the scanner counter.

SCANMODE	Scanner mode counter
----------	----------------------

The counter display is in 7 digits.

**SIMULATION 22-19**

SCAN MODE COUNTER DATA DISPLAY.

SCANMODE: nnnnnnn

**24****24-1**

<b>Purpose</b>	Data clear
<b>Function (Purpose)</b>	Used to clear the misfeed counter, the misfeed history, the trouble counter, and the trouble history. (The counters are cleared after completion of maintenance.)
<b>Section</b>	Memory
<b>Item</b>	Counter

**Operation/procedure**

Jam/trouble counter is cleared individually. (The history of each counter is deleted when clearing)

1. Select the counter to be cleared with the 10-key.
2. Press the [START] key.  
The confirmation menu is shown.
3. Select "1: YES."  
1: YES (Cleared)  
2: NO (Not cleared) (Default)

Item	Content
1 JAM	JAM counter/JAM history
2 SPF JAM	SPF/RSPF JAM counter/SPF/RSPF JAM history
3 TROUBLE	Trouble counter/Trouble history

**SIMULATION 24-1**

JAM/TROUBLE COUNTER DATA CLEAR. SELECT 1-3, AND PRESS START.

1:JAM 2:SPF JAM 3:TROUBLE

2

**24-2**

<b>Purpose</b>	Data clear
<b>Function (Purpose)</b>	Used to clear the number of use (the number of prints) of each paper feed section.
<b>Section</b>	Paper feed
<b>Item</b>	Counter

**Operation/procedure**

Used to clear each paper feed counter individually.

1. Select the counter to be cleared with the 10-key.
2. Press the [START] key. The confirmation menu is shown.
3. Select "1: YES."  
1: YES (Cleared)  
2: NO (Not cleared) (Default)

Item	Content
1 BYPASS	Manual feed counter
2 TRAY1	Tray 1 counter
3 TRAY2	Tray 2 counter
4 TRAY3	Tray 3 counter
5 TRAY4	Tray 4 counter

**SIMULATION 24-2**

PAPER FEED COUNTER DATA CLEAR. SELECT 1-5, AND PRESS START.

1:BYPASS 2:TRAY1 3:TRAY2  
4:TRAY3 5:TRAY4

2

**24-3**

<b>Purpose</b>	Data clear
<b>Function (Purpose)</b>	Used to clear the number data of use of the staple, the SPF/RSPF and scanning.
<b>Section</b>	Transport/Finisher
<b>Item</b>	Counter

**Operation/procedure**

Used to clear the original and staple counters individually.

1. Select the counter to be cleared with the 10-key.
2. Press the [START] key.  
The confirmation menu is shown.
3. Select "1: YES."  
1: YES (Cleared)  
2: NO (Not cleared) (Default)

Item	Content
1 SPF	SPF/RSPF counter
2 SCAN	Scan counter
3 STAPLE	Stapler counter

**SIMULATION 24-3**

ORG./STAPLE COUNTER DATA CLEAR. SELECT 1-3, AND PRESS START.

1:SPF 2:SCAN 3:STAPLE

2

**24-4**

<b>Purpose</b>	Data clear
<b>Function (Purpose)</b>	Used to reset the maintenance counter.
<b>Item</b>	Counter

**Operation/procedure**

1. Press the [START] key. The confirmation menu is shown.
2. Select "1: YES."  
1: YES (Cleared)  
2: NO (Not cleared) (Default)

**SIMULATION 24-4**

MAINTENANCE COUNTER DATA CLEAR. PRESS START.

**24-5**

<b>Purpose</b>	Data clear
<b>Function (Purpose)</b>	Used to reset the developer counter. (The developer counter of the DV unit which is installed is reset.)
<b>Section</b>	Image process (Photoconductor/Developing/Transfer/Cleaning) Developer/Toner hopper
<b>Item</b>	Counter Developer

**Operation/procedure**

1. Press the [START] key.  
The confirmation menu is shown.
2. Select "1: YES."  
1: YES (Cleared)  
2: NO (Not cleared) (Default)

**SIMULATION 24-5**

DEVELOPER COUNTER DATA CLEAR. PRESS START.

24-6

<b>Purpose</b>	Data clear	
<b>Function (Purpose)</b>	Used to clear the copy counter.	
<b>Item</b>	Counter	Copier

**Operation/procedure**

1. Press the [START] key.  
The confirmation menu is shown.
2. Select "1: YES."  
1: YES (Cleared)  
2: NO (Not cleared) (Default)

**SIMULATION 24-6**

COPY COUNTER DATA CLEAR. PRESS START.

24-7

<b>Purpose</b>	Data clear	
<b>Function (Purpose)</b>	Used to clear the OPC drum (membrane decrease) correction counter. (This simulation is executed when the OPC drum is replaced.)	
<b>Section</b>	Image process (Photoconductor/Developing/Transfer/Cleaning) Photo conductor	
<b>Item</b>	Counter	

**Operation/procedure**

1. Press the [START] key.  
The confirmation menu is shown.
2. Select "1: YES."  
1: YES (Cleared)  
2: NO (Not cleared) (Default)

**SIMULATION 24-7**

DRUM COUNTER DATA CLEAR. PRESS START.

24-9

<b>Purpose</b>	Data clear	
<b>Function (Purpose)</b>	Used to clear the printer counter and other counters. (The counter is cleared after completion of maintenance.)	
<b>Section</b>	Printer	
<b>Item</b>	Counter	Printer

**Operation/procedure**

1. Select the counter to be cleared with the 10-key.
2. Press the [START] key.  
The confirmation menu is shown.
3. Select "1: YES."  
1: YES (Cleared)  
2: NO (Not cleared) (Default)

Item	Content
1 PRINTER	Printer counter
2 IMC	IMC counter
3 DUPLEX	DUPLEX counter
4 OTHERS	The other counters

**SIMULATION 24-9**

PRINTER/OTHERS COUNTER DATA CLEAR. SELECT 1-4, AND PRESS START.

1:PRINTER 2:IMC 3:DUPLEX 4:OTHERS

2

24-10

<b>Purpose</b>	Data clear	
<b>Function (Purpose)</b>	FAX counter data clear	
<b>Section</b>	FAX	
<b>Item</b>	Counter	

**Operation/procedure**

1. Select the "3: NUMBER OF PRINTS", and press the [START] key.  
The confirmation menu is shown.
2. Select "1: YES."  
1: YES (Cleared)  
2: NO (Not cleared) (Default)

Item	Content
1 FAX SEND (PAGE & TIME)	FAX send page and time
2 FAX RECEIVE (PAGE & TIME)	FAX receive page and time
3 FAX OUTPUT	FAX output (number of prints)

Note: Executable only when the FAX is installed.

**SIMULATION 24-10**

FAX OUTPUT COUNTER DATA CLEAR. PRESS START.

24-15

<b>Purpose</b>	Data clear	
<b>Function (Purpose)</b>	Used to clear the scanner counter in the network scanner mode.	
<b>Section</b>	Scanner section	
<b>Item</b>	Counter	

**Operation/procedure**

1. Press the [START] key.  
The confirmation menu is shown.
2. Select "1: YES."  
1: YES (Cleared)  
2: NO (Not cleared) (Default)

The scanner mode counter and the number of send of the scanner are cleared.

\* The simulation to perform communication with the PCL is inhibited until Notice Page storing is completed. (Only when the serviceman call error occurs.)

\* When in other than the serviceman call error, entering the simulation is not allowed from the system check display.

**SIMULATION 24-15**

SCAN MODE COUNTER DATA CLEAR. PRESS START.

25

25-1

<b>Purpose</b>	Operation test/check	
<b>Function (Purpose)</b>	Used to check the operation of the main drive (excluding the scanner section) and to check the operation of the toner concentration sensor. (The toner concentration sensor output can be monitored.) (To be supported for Ver.00.72 or later)	
<b>Section</b>	DRIVE	
<b>Item</b>	Operation	



### Operation/procedure

1. Select the speed (600dpi, 1200dpi) with the 10-key.
2. Press the [START] key.  
The main motor rotates to start monitoring the toner density control sensor. (3min operation)

After execution, interruption cannot be made for about 7 sec. ([CA] key and [CUSTOM SETTINGS] key are disabled.)

- \* Even in toner end error, if there is no other error (including cover open) after turning on the power, this simulation can be performed.

#### SIMULATION 25-1

MAIN MOTOR CHECK. SELECT 1-2, AND PRESS START.

1:600dpi

2:1200dpi

2

25-2

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to make the initial setting of toner concentration when replacing developer.
<b>Section</b>	Image process (Photoconductor/Developing/Transfer/Cleaning)
	Developer/Toner hopper

### Operation/procedure

- 1) Open the cover with the power OFF.
- 2) Turn on the power. (Since the cover is open, the machine does not perform initializing.)
- 3) Install the developing tank.
- 4) Execute the simulation.
- 5) Enter SIM 25-2. ([25] → [START] key → [2] → [START] key)
- 6) Open the cover just before starting the simulation.
- 7) Press the [START] key.

The main motor rotates. After stirring for 3 min, the toner density control sensor value is sampled 16 times, and the average value is stored.

When "EE-EU" or "EE-EL" after completion, an error display is shown.

Note: After completion of execution, be sure to press the [CA] key to cancel the simulation.

### [CRUM-related error cancel procedure]

- When "CRUM DEVICE ERROR" is displayed:

Error content: Occurs in case of a communication error between the machine and CRUM.

Cancel procedure: Reset with [CA] key and cancel with SIM 16.

- "CRUM DATA ERROR"

Error content: CRUM identification error, CRUM model error, CRUM type error, CRUM destination error

Cancel procedure: Install the CRUM which is satisfactory with the machine setup, reset with the [CA] key, and execute SIM 25-2 again.

- "DEVE UNIT NONE"

Error content: Occurs when the developing unit is not installed in an AR model.

Cancel procedure: It returns to the state before execution of auto developer adjustment. It is canceled by the operations of Cover open → Developing unit installation → Cover close. Therefore, developer adjustment is started by pressing [START] key.

- "TONER UNIT NONE"

Error content: Occurs when the CRUM is not installed in a DM model.

Cancel procedure: It returns to the state before execution of auto developer adjustment. It is canceled by the operations of Cover open → CRUM installation → Cover close. Therefore, developer adjustment is started by pressing [START] key.

- "EU ERROR"

Error content: Occurs when the toner concentration reference value calculated in developer adjustment finally is 179 or greater.

Cancel procedure: Reset with [CA] key and execute SIM 25-2 again.

- "EL ERROR"

Error content: Occurs when the toner concentration reference value calculated in developer adjustment finally is 77 or smaller.

Cancel procedure: Reset with [CA] key and execute SIM 25-2 again.

#### SIMULATION 25-2

AUTOMATIC DV ADJUSTMENT. PRESS START.

26

26-1

<b>Purpose</b>	Setting	
<b>Function (Purpose)</b>	Used to set whether the job separator is installed or not. (Since this cannot be detected by hardware detection, it is set in this simulation.)	
<b>Item</b>	Specifications	Option

### Operation/procedure

1. Select the set value with the 10-key.
2. Press the [START] key.

Set value	Connection option
0	None (default)
1	Job separator provided.

#### SIMULATION 26-1

OPTION SETTING. SELECT 0-1, AND PRESS START.

0:NONE

1:JOB SEPARATOR

0

26-2

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to set whether the automatic detection of paper size is made or not.
<b>Section</b>	Paper feed
<b>Item</b>	Specifications

### Operation/procedure

1. Select the item with the 10-key and press the [START] key.  
Used to set the automatic size detection.
2. Set whether automatic detection of paper size is made or not with the 10-key.

1:B4/LG,FC	Setting to detect B4/Legal as FC 0: B4 legal is detected as B4 legal. (Default) 1: B4 legal is detected as FC.
2:A4<->LT	This setup detects Letter as A4 in the inch series and A4 as Letter in the AB series. 0: Detection disable (Default) 1: Detection valid

8.5" x 13" detection valid/invalid setup

Set value	Setup	Remarks
0	Detection invalid	Default
1	Detection valid	

Detection size when 8.5" x 13" document/paper is used.

	Employed unit	Destination	Document size	Set value	
				0 (Invalid)	1 (Valid)
Document	Document table/RSPF	AB series (Japan)	FC (8.5" x 13")	B4	B4
			LG (8.5" x 14")	B4	B4
			B4	B4	B4
		AB series	FC (8.5" x 13")	B4	FC (8.5" x 13")
			LG (8.5" x 14")	B4	FC (8.5" x 13")
			B4	B4	FC (8.5" x 13")
		Inch series	FC (8.5" x 13")	LG (8.5" x 14")	FC (8.5" x 13")
			LG (8.5" x 14")	LG (8.5" x 14")	FC (8.5" x 13")
			B4	WLT (11" x 17")	WLT (11" x 17")
Paper	Machine paper feed cassette	All destinations	—	Set with key operations.	
	Manual paper feed tray	Japan (AB series)	FC (8.5" x 13")	LG (8.5" x 14")	LG (8.5" x 14")
			LG (8.5" x 14")	LG (8.5" x 14")	LG (8.5" x 14")
			B4	B4	B4
		AB series	FC (8.5" x 13")	LG (8.5" x 14")	FC (8.5" x 13")
			LG (8.5" x 14")	LG (8.5" x 14")	FC (8.5" x 13")
			B4	B4	B4
		Inch series	FC (8.5" x 13")	LG (8.5" x 14")	FC (8.5" x 13")
			LG (8.5" x 14")	LG (8.5" x 14")	FC (8.5" x 13")
			B4	B4	B4

A4/LT (8.5" x 11") detection enable/disable setup

In the inch series, Letter is detected as A4; in the AB series, A4 is detected as Letter.

Set value	Setup	Remarks
0	Detection invalid	Default
1	Detection valid	

Detection size when A4/LT (8.5" x 11") document/paper is used.

	Employed unit	Destination	Document size	Set value	
				0 (Invalid)	1 (Valid)
Document	Document table/RSPF	AB series	A4	A4	LT (8.5" x 11")
			LT (8.5" x 11")	A4	LT (8.5" x 11")
		Inch series	A4	LT (8.5" x 11")	A4
			LT (8.5" x 11")	LT (8.5" x 11")	A4
Paper	Machine paper feed cassette	All destinations	—	Set with key operations.	
	Manual paper feed tray	All destinations	—	Regardless of the simulation setup.	

SIMULATION 26-2  
SIZE SETTING. SELECT 1-2, AND PRESS START.  
1:B4/LG,FC ☐ 0 ☒ 1  
2:A4<->LT ☐ 0 ☐ 1

## 26-3

Purpose	Setting
Function (Purpose)	Used to set the specifications of the auditor. Setting must be made depending on the use condition of the auditor.
Section	Auditor
Item	Specifications

### Operation/procedure

Select the mode corresponding to the auditor specification mode with the 10-key.

Item	Content	Setting range	Default
0	P10	0-2	0
1	VENDOR		
2	OTHER		

When "1: VENDOR (Coin vendor mode)" is set, the following three items of key operation setting are changed.

- 1) Set the LCD backlight change inhibit to "1: OFF (Enable)."

- 2) When SIM 26-6 destination setting is set to "0: Japan," duplex copy inhibit setting must be set to "0: ON (Inhibit)."
- 3) Set the sort automatic selection to "0: OFF (Disable)."

SIMULATION 26-3  
AUDITOR SETUP. SELECT 0-2, AND PRESS START.  
0:P10 ☒ 0  
1:VENDOR  
2:OTHER

## 26-5

Purpose	Setting
Function (Purpose)	Used to set the count mode of the total counter and the maintenance counter.
Item	Specifications
	Counter

### Operation/procedure

Used to set the count up number (1 or 2) when an A3/WLT paper passes through.

For the drum counter and the developer counter, double count is employed unconditionally.

(Target counter selection)

Item		Content
1	TOTAL COUNTER	Total
2	MAINTENANCE COUNTER	Maintenance

Used to set the count up number of the selected counter.

Item		Content	Setting range	Default
1	1:SINGLE COUNT	Single count	1-2	2
2	2:DOUBLE COUNT	Double count		

**SIMULATION 26-5**  
A3(LEDGER) COUNT UP MODE SETTING. SELECT 1-2, AND PRESS START.

1:TOTAL COUNTER       

2:MAINTENANCE COUNTER

26-6

Purpose	Setting	
Function (Purpose)	Used to set the specifications depending on the destination.	
Item	Specifications	Destination

#### Operation/procedure

Select the destination with the 10-key.

By changing the destination, some other setting items may be changed.

Item		Content	Setting range	Default
0	JAPAN	Japan	0-13	0
1	SEC	SEC		
2	SECL	SECL		
3	SEEG	SEEG		
4	SUK	SUK		
5	SCA	SCA		
6	SEF	SEF		
7	INEG	EX inch series		
8	ABEG	EX AB series		
9	INEF	EX inch series (FC)		
10	ABEF	EX AB series (FC)		
11	CHINESE	China		
12	TAIWAN	Taiwan		
13	SEEG2	SEEG2		

**SIMULATION 26-6**  
DESTINATION SETUP. SELECT 0-13, AND PRESS START.

0:JAPAN                      1:SEC                     

2:SECL                      3:SEEG

4:SUK                      5:SCA

6:SEF                      7:INEG

8:ABEG                      9:INEF

10:ABEF                      11:CHINESE

12:TAIWAN                      13:SEEG2

26-10

Purpose	Setting
Function (Purpose)	Network scanner trial mode setting
Section	Scanner

#### Operation/procedure

Enter the set value with the 10-key and press the [START] key.

Item		Content	Default
0	END	Trial mode cancel	0
1	START	Trial mode start	

If the trial scanner counter value is less than 500, the trial mode setting can be repeatedly made. If the scanner trial counter value is 500 or more, the trial mode setting cannot be made.

When the scanner is not set and the scanner trial counter value is less than 500, if "1" is entered in SIM26-10, the trial mode setting is started. If "0" is entered in SIM26-10, the trial mode setting is canceled.

After recognition of the scanner, the trial mode setting cannot be made. (Entering "1" is invalid and a beep sound is produced.)

When this setting is made, the machine must be reset after canceling the simulation. When "1: Trial mode start" is selected, the scanner function is valid. If "0: Trial mode cancel" is selected, the scanner function is invalid.

When setting is invalid (when the scanner is recognized or the scanner trial counter value is 500 or more) in the key operations of the trial mode setting, an invalid sound (beep sound) is made. In the other case, a valid sound is made.

\* When the scanner trial counter value is changed from 500 or more to less than 500, the trial setting is changed from "END" to "SETTING START."

Note: Executable only when the PCL/SCANNER is installed.

**SIMULATION 26-10**  
NETWORK SCANNER TRIAL SETTING. SELECT 0-1, AND PRESS START.

0: END                     

1: START

26-12

Purpose	Setting
Function (Purpose)	Used to input the Software Key for E-MAIL RIC.
Section	E-MAIL RIC
Item	Specifications

#### Operation/procedure

The current setup is displayed with ON or OFF.

Enter an input (20 digits) of the E-MAIL RIC soft key with the 10-key and press the [START] key, and the collating result is displayed with OK or NG.

After canceling the simulation, if OK, the E-MAIL RIC function is enable; if NG, the E-MAIL RIC function is disabled.

This setting must be reset after the simulation cancel.

\* If recognition is OK, the E-Mail RIC can be set to Enable. If the FAX is installed, however, the operation cannot be made actually.

Note: Executable only when the PCL/NIC is installed.

**SIMULATION 26-12**  
E-MAIL RIC SOFTWARE KEY INPUT.

E-MAIL KEY    ON

26-14

Purpose	Setting
Function (Purpose)	Used to input the Software Key for the PS extension kit.
Section	Printer
Item	Specifications

#### Operation/procedure

The current setup is displayed with ON or OFF.

Enter an input (20 digits) of the PS expansion kit soft key with the 10-key and press the [START] key, and the collating result is displayed with OK or NG.

After canceling the simulation, if OK, the PS expansion kit function is enable; if NG, the PS expansion kit function is disabled.

This setting must be reset after the simulation cancel.

Note: Executable only when the PCL/PS3 is installed.

#### SIMULATION 26-14

PS KIT SOFTWARE KEY INPUT.

PS KIT KEY ON



26-18

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to set enable/disable of toner save operation.
<b>Item</b>	Specifications
	Operation mode (Common)

#### Operation/procedure

Input the set value with the 10-key and press the [START] key.

Item	Content	Setting range	Default
0	OFF	0-1	0
1	ON		

Note: Setup is allowed only for Japan and UK.

#### SIMULATION 26-18

TONER SAVE MODE SETTING. SELECT 0-1, AND PRESS START.

0:OFF

1:ON

0

26-22

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to set the specification (language display) for the destination.
<b>Item</b>	Specifications

#### Operation/procedure

Select the display language (language code) with the 10-key according to the table below, and press the [START] key.

This setup varies in connection with SIM 26-6 (Destination setup).

Item	Language code	ASIC expression	Remarks
0	JAPANESE	ja	6A 61
1	ENG.US	en	65 6E
2	ENG.UK	gb	67 62
3	FRENCH	fr	66 72
4	GERMAN	de	64 65
5	ITALY	it	69 74
6	DUTCH	nl	6E 6C
7	SWEDISH	sv	73 76
8	SPANISH	es	65 73
9	PORTUGUESE	pt	70 74
10	TURKISH	tr	74 72
11	GREEK	el	65 6C
12	POLISH	pl	70 6C
13	HUNGARIAN	hu	68 75
14	CZECH	cs	63 73
15	RUSSIAN	ru	72 75
16	FINNISH	fi	66 69
17	NORWEGIAN	no	6E 6F
18	DANISH	da	64 61
19	CHINESE	zh	7A 68
20	TAIWANESE	tw	74 77
21	SLOVAK	sk	73 6B
22	HEBREW	he	68 65

#### SIMULATION 26-22

LANGUAGE SETTING. SELECT 0-22, AND PRESS START.

0:JAPANESE	1:ENG.US	2:ENG.UK
3:FRENCH	4:GERMAN	5:ITALY
6:DUTCH	7:SWEDISH	8:SPANISH
9:PORTUGUESE	10:TURKISH	11:GREEK
12:POLISH	13:HUNGARIAN	14:CZECH
15:RUSSIAN	16:FINNISH	17:NORWEGIAN
18:DANISH	19:CHINESE	20:TAIWANESE
21:SLOVAK	22:HEBREW	

0

26-30

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to set ON/OFF of the heater lamp slow-up control conforming to the CE mark control.
<b>Item</b>	Specifications
	Operation mode (Common)

#### Operation/procedure

Input the set value with the 10-key and press the [START] key.

This setup varies in connection with SIM 26-6 (Destination setup).

Item		Default	
		Japan, SEC, SECL, SCA, SEF, Taiwan	Others
0	OFF	0	1
1	ON		

#### SIMULATION 26-30

CE MARK CONTROL SETTING. SELECT 0-1, AND PRESS START.

0:OFF

1:ON

0

26-35

<b>Purpose</b>	Setup
<b>Function (Purpose)</b>	Used to set whether the same continuous troubles are displayed as one trouble or the series of troubles with SIM 22-4 when the same troubles occur continuously.
<b>Item</b>	Specifications

#### Operation/procedure

Enter the set value with 10-key, and press [START] key.

Item	Content	Default
0	ONCE	0
1	ANY	

#### SIMULATION 26-35

TROUBLE MEMORY MODE SETTING. SELECT 0-1, AND PRESS START.

0:ONCE

1:ANY

0

26-36

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to set whether the machine is stopped or not when the maintenance counter life is expired.
<b>Item</b>	Operation

#### Operation/procedure

Input the set value with the 10-key and press the [START] key.

Item	Content	Default
0	STOP	1
1	NON STOP	

Note: Executable only with SRU (AR models).

**SIMULATION 26-36**

MAINTENANCE COUNTER LIFE OVER SETTING. SELECT 0-1, AND PRESS START.

0:STOP

1:NON STOP

0

26-41

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to set ON/OFF of the automatic magnification ratio selection (AMS) when setting the binding function.
<b>Item</b>	Operation

**Operation/procedure**

Enter the set value with the 10-key, and press the [START] key.

Item	Content	Default
0 OFF	AMS is not set automatically.	0
1 ON	AMS is set automatically.	

**SIMULATION 26-41**

PAMPHLET MODE AMS SETTING. SELECT 0-1, AND PRESS START.

0:OFF

1:ON

0

26-46

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to set whether to meet with the output direction of images regardless of the mode when installing the finisher.
<b>Item</b>	Operation

**Operation/procedure**

When this setting is made, the image output direction in the staple mode and that in the normal mode become the same. Therefore, the user who uses printed paper (logo, house style, etc) need not change the original direction in the staple mode. (When the finisher is used, images are rotated 180 degrees in the staple mode.)

Enter the set value with the 10-key, and press the [START] key.

Item	Content	Default
0 OFF	No setting (The output image direction is changed in the staple mode of the finisher.)	0
1 ON	Setting (The output image direction is the same regardless of stapling or not.)	

Note: Executable only when the finisher is installed.

**SIMULATION 26-46**

OUT DIRECTION SETTING. SELECT 0-1, AND PRESS START.

0:OFF

1:ON

0

26-50

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to set ON/OFF of the black and white reversion function.
<b>Item</b>	Operation

**Operation/procedure**

Enter the set value with the 10-key, and press the [START] key.

Item	Content	Default
0 ON	Enable	0
1 OFF	Disable	

**SIMULATION 26-50**

B/W REVERSE SETTING. SELECT 0-1, AND PRESS START.

0:ON

1:OFF

0

26-57

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to set the model code.
<b>Item</b>	Operation

**Operation/procedure**

Input the set value with the 10-key and press the [START] key.

Item	Default
1 AR-M236	1
2 AR-M276	
3 AR-M237	
4 AR-M277	
5 AR-266S	
6 AR-266G	
7 AR-266FG	
8 AR-266FP	

**SIMULATION 26-57**

MACHINE CODE SETTING. SELECT 1-8, AND PRESS START.

1:AR-M236

2:AR-M276

3:AR-M237

4:AR-M277

5:AR-266S

6:AR-266G

7:AR-266FG

8:AR-266FP

1

26-60

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to set enable/disable of the FAX mode key when FAX is not installed. (When FAX is installed, the FAX mode is enabled regardless of this setup.)
<b>Item</b>	Operation

**Operation/procedure**

Input the set value with the 10-key and press the [START] key.

Item	Content	Default	
		JAPAN, SEC, SECL, SUK, SCA	Others
0 ON	Effective (The message with FAX uninstalled is displayed.)	0	1
1 OFF	Disable (Error Beep)		

This setup varies in connection with SIM 26-6 (Destination setup).

**SIMULATION 26-60**

FAX KEY SETTING. SELECT 0-1, AND PRESS START KEY.

0:ON

1:OFF

0

26-71

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	In the power save time setting, the pre-heat (pre-heat mode setting) and the auto power shut off time can be set to the short time setup (pre-heat: 1 min, auto power shut off: 4 min) and the long time setup (pre-heat: 15min, auto power shut off: 60min).

## Operation/procedure

Select the short time setup or the long time setup of the pre-heat time and the auto power shut off time with the 10-key, and press the [START] key.

Item	Content	Default
1	Pre-heat: 1min, auto power shut off: 4min	2
2	Preheat: 15min, auto power shut off: 60min	

Note: When the sub code 71 is entered to display the setting menu, the default values are always displayed. (However, the default time is not always set.)

### SIMULATION 26-71

ENERGY-SAVING SETTING. SELECT 1-2, AND PRESS START.  
1:SHORT  
2:LONG

2

27

27-1

<b>Purpose</b>	Setting	
<b>Function (Purpose)</b>	Used to set PC/MODEM communication trouble (U7-00) detection Yes/No.	
<b>Section</b>	Communication (RIC/MODEM)	
<b>Item</b>	Specifications	Operation mode (Common)

## Operation/procedure

Input the set value with the 10-key and press the [START] key.

Item	Content	Default
0	OFF	0
1	ON	

### SIMULATION 27-1

DISABLING OF U7-00 TROUBLE. SELECT 0-1, AND PRESS START.  
0:OFF  
1:ON

0

27-5

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to set the tag number.
<b>Item</b>	Data

## Operation/procedure

1. The currently set number is displayed on the PRESENT column.
2. Enter the new tag number (Max. 8 digits) with the 10-key. The entered number is displayed on the NEW column.
3. Press the [START] key. The set value is stored and "PRESENT" is revised.

### SIMULATION 27-5

TAG# SETTING. INPUT VALUE, AND PRESS START.  
PRESENT :  
NEW : 12345678

30

30-1

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to display the sensor status attached to the machine.
<b>Section</b>	Others
<b>Item</b>	Operation

## Operation/procedure

The active sensors and detectors are highlighted.

PPD1H	PS paper detection 1 sensor
PPD1L	PS paper detection 2 sensor
PPD2	Fusing paper sensor
POD1	1st paper exit paper out sensor
DVCH	Developing cartridge detection sensor
DRST	Drum initial detection sensor
DSWR1	Interlock switch (side door)
SFTHP	Shifter home position sensor
POD2	2nd paper exit paper out sensor
TOPF	2nd paper exit full detection sensor
DSWR0	2nd paper exit cover open/close detection sensor
LOEMP	1st paper exit empty detection sensor
DUP2	Reverse path paper sensor

### SIMULATION 30-1

SENSOR CHECK.  
PPD1H PPD1L PPD2 POD1 DVCH DRST DSWR1  
SFTHP POD2 TOPF DSWR0 LOEMP DUP2

30-2

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to display the status of the sensors attached to the standard cassette and the manual feed tray. (Use SIM 4-2 for the option cassettes.) The sensor of an uninstalled cassette is not displayed.
<b>Section</b>	Paper feed
<b>Item</b>	Operation

## Operation/procedure

The active sensors and detectors are highlighted.

PED1	1st cassette paper empty sensor
LUD1	1st cassette paper upper limit detection sensor
CD1	1st cassette empty sensor
PED2	2nd cassette paper empty sensor
LUD2	2nd cassette paper upper limit detection sensor
CD2	2nd cassette empty sensor
PFD2	2nd cassette paper pass sensor
DSWR2	2nd cassette right door detection sensor
MPED	Manual tray paper empty detection
MPLS1	Manual tray length detection 1
MPLS2	Manual tray length detection 2
MPLD1	Manual feed paper length detection 1
MPLD2	Manual feed paper length detection 2

Width detection size of the manual feed tray (one of them is displayed.)  
A4/A3, LT/WLT, B5/B4, INV/LTR, A5/A4R, B5R, POSTCARD, EXTRA, 8K/16K

(At detection, highlighted)

### SIMULATION 30-2

TRAY SENSOR CHECK.  
PED1 LUD1 CD1 PED2 LUD2 CD2 PFD2  
DSWR2 MPED MPLS1 MPLS2 MPLD1 MPLD2 A3/A4  
LT/WLT B5/B4 INV/LTR A5/A4R B5R POSTCARD EXTRA  
8K/16K

40-1

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the sensor of the machine manual feed tray.
<b>Section</b>	Paper feed
<b>Item</b>	Operation

**Operation/procedure**

The active sensors and detectors are highlighted.

MPLS1	Manual tray length detection 1
MPLS2	Manual tray length detection 2
MPLD1	Manual feed paper length detection 1
MPLD2	Manual feed paper length detection 2

Width detection size of the manual feed tray (one of them is displayed.)  
A4/A3, LT/WLT, B5/B4, INV/LTR, A5/A4R, B5R, POSTCARD, EXTRA, 8K/16K

**SIMULATION 40-1**

BYPASS TRAY SENSOR CHECK.

MPLS1 MPLS2 MPLD1 MPLD2 A3/A4 INV/LTR  
B5/B4 LT/WLT A5/A4R B5R POSTCARD EXTRA  
8K/16K

40-2

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	Used to adjust the manual paper feed tray paper width detector detection level.
<b>Section</b>	Paper feed
<b>Item</b>	Operation

**Operation/procedure**

The adjustment method is of the 4-point system. Set the guide to Max. (A3/WLetter) position, A4R/Letter R position, A5R/Invoice R position, and Min. position for adjustment.

- 1) Set A3/W Letter and fit the guide, then press the [START] key.
- 2) Set A4R/LetterR and fit the guide, then press the [START] key.
- 3) Set to A5R/INVOICE R and fit the guide, then press the [START] key.
- 4) Narrow the guide at minimum, press the [START] key.
- 5) Set the paper detection width (+), and press the [START] key.
- 6) Set the paper detection width (–), and press the [START] key.

If "FAILED" is displayed in procedure 1), 2), 3), or 4), it is NG of adjustment. Repeat the adjustment.

Middle position adjustment L	Yes	MID-L ADJ.ON
	No	MID-L ADJ.OFF
Middle position adjustment S	Yes	NID-S ADJ.ON
	No	MID-S ADJ.OFF

AB series

Inch series

**SIMULATION 40-2**

BYPASS TRAY  
ADJUSTMENT.  
A3 PAPER SET, AND  
PRESS START KEY.

**SIMULATION 40-2**

BYPASS TRAY  
ADJUSTMENT.  
WLT PAPER SET, AND  
PRESS START KEY.

40-3

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	The AD conversion value of manual feed width detection is displayed.
<b>Section</b>	Paper feed
<b>Item</b>	Operation

**Operation/procedure**

The AD conversion value of manual feed width detection is displayed.

**SIMULATION 40-3**

BYPASS TRAY WIDTH DATA DISPLAY.

123

41-1

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the document size detection photo sensor.
<b>Section</b>	Others
<b>Item</b>	Operation

**Operation/procedure**

The operation status of the sensors and detectors in the original size detection section are displayed. The active sensors and detectors are highlighted.

OCSW	Original cover state Open: Highlighted display Close: Normal display
PD1 to 5	Original sensor status Without original: Normal display With original: Highlighted display

For AB series, PD1 to 5 is displayed, for inch series, PD1 to 4.

**SIMULATION 41-1**

PD SENSOR CHECK.

OCSW PD1 PD2 PD3 PD4 PD5

41-2

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	Used to adjust the detection level of the document size photo sensor.
<b>Section</b>	Others
<b>Item</b>	Operation

**Operation/procedure**

Place an A3 (or WLT) document on the document table, and press [START] key with the OC cover open.

The adjustment is performed and the result is displayed.

OCSW	Original cover state Open: Highlighted display Close: Normal display
1 to 5	PD sensor detection level (Hexadecimal display)

The value in [ ] shows the threshold value. (Hexadecimal display)

For AB series, 1 to 5 is displayed, for inch series, 1 to 4.

During execution of the simulation, "EXECUTING" is displayed.

**SIMULATION 41-2**

PD SENSOR ADJUSTMENT. PRESS START.



41-3

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the light reception level and the detection level of the original size detection photo sensor.
<b>Section</b>	Others
<b>Item</b>	Operation

**Operation/procedure**

The detection output level of each sensor is displayed in real time.

OCSW	Original cover state Open: Highlighted display Close: Normal display
1 to 5	PD sensor detection level (Hexadecimal display)

The value in [ ] shows the threshold value of 20 degree detection adjustment. (Hexadecimal display)

For AB series, 1 to 5 is displayed, for inch series, 1 to 4.

**SIMULATION 41-3**  
PD SENSOR DATA DISPLAY.  
OCSW  
1[128]200    2[128]200    3[128]200  
4[128]200    5[128]200

41-4

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	Used to adjust the detection level of OC 20 degrees.
<b>Section</b>	Others
<b>Item</b>	Operation

**Operation/procedure**

Set the OC cover at 20 degrees detection and press the [START] key.

The detection output level of each sensor is displayed in real time.

OCSW	Original cover state Open: Highlighted display Close: Normal display
1 to 5	PD sensor detection level (Hexadecimal display)

The value in [ ] shows the threshold value of 20 degree detection adjustment. (Hexadecimal display)

For AB series, 1 to 5 is displayed, for inch series, 1 to 4.

During execution, [EXEC] is highlighted.

**SIMULATION 41-4**  
OC 20 DEG SENSOR DATA ADJUSTMENT. PRESS START.

[START] key ON

**SIMULATION 41-4**  
OC 20 DEG SENSOR DATA ADJUSTMENT.  
OCSW  
1[080]0C8    2[080]0C8    3[080]0C8  
4[080]0C8    5[080]0C8

43

43-1

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to set the fusing temperature in 600dpi, 1200dpi, or postcard print.
<b>Section</b>	Fixing (Fusing)
<b>Item</b>	Operation

**Operation/procedure**

1. Touch the item to be set.
2. Enter the set value with the 10-key.

	Item	Content	Setting range	Default
1	600dpi	600dpi	155-200	190 (Europe)/ 175 (Japan, SEC, SECL)/ 185 (Others)
2	1200dpi	1200dpi	140-200	165
3	POST CARD	Postcard	155-200	190
4	CARDBOARD	Thick paper	155-200	190

**SIMULATION 43-1**  
FUSER TEMPERATURE SET. INPUT VALUE 155-200, AND PRESS START.  
1: 600dpi    185    185  
2: 1200dpi    165    1/1  
3: POST CARD    190    ↑  
4: CARDBOARD    190    ↓  
OK

43-10

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to set the paper feed cycle timing when printing postcards.
<b>Section</b>	Paper feed
<b>Item</b>	Operation

**Operation/procedure**

Input the set value with the 10-key and press the [START] key.

Setting range	1-99
Default	50

**SIMULATION 43-10**  
POST CARD PICK UP CYCLE SETTING. INPUT VALUE 1-99, AND PRESS START.  
50

44

44-1

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to make various setups in each mode of process control.
<b>Section</b>	Image process (Photoconductor/Developing/Transfer/Cleaning)
<b>Item</b>	Operation

**Operation/procedure**

Enter the set value with the 10-key, and press the [START] key.

	Item	Content	Default
1	ENVIRONMENT ADJ.	Environmental correction Allow/Inhibit (0: Inhibit, 1: Allow)	1
2	DUPLEX PRINT ADJ.	Duplex print correction Allow/Inhibit (0: Inhibit, 1: Allow)	0

# SIMULATION 44-1

PROCESS CONTROL MODE SETTING. SELECT 1-2, AND PRESS START.

1:ENVIRONMENT ADJ.

1

1

2:DUPLIX PRINT ADJ.

0

44-34

Purpose	Setting
Function (Purpose)	Used to set the transfer current value in each mode.

## Operation/procedure

1. Touch the item to be set.
2. Enter the set value with the 10-key.

To support an individual necessity in paper and the environment, it is variable in the range of 5 to 30uA in the increment of 1uA in each mode.

When changing +V2, check with +V1 unchanged. If there is any trouble in the half tone image of graphics, keep the relationship between +V1 and +V2 at the default and change it.

When the image quality is deteriorated because the user selects the OHP mode and use other than the recommended OHP, decrease the transfer current to adjust deterioration of black background picture quality. If some of characters are not printed, increase the transfer current.

This setting is changed in linkage with SIM 26-6 destination setting.

\*1: SECL/SCA/SEF/EX inch series/EX AB series/EX inch series (FC)/EX AB series (FC)/China/Taiwan/SEEG2

\*2: SEC/SEEG/SUK

Item	Content	Setting range	Default	
			*1	*2
1	+V1F (600)	600dpi normal paper > B5R + V1 single surface. Duplex (Front)	5-30	5 5
2	+V1R (600)	600dpi normal paper > B5R + V1 Duplex (Back)	5-30	5 5
3	+V2F (600)	600dpi normal paper > B5R +V2 single surface. Duplex (Front)	5-30	18 20
4	+V2R (600)	600dpi normal paper > B5R +V2 Duplex (Back)	5-30	14 18
5	+V1S-F (600)	600dpi normal paper ≤ B5R +V1 single surface. Duplex (Front)	5-30	5 5
6	+V1S-R (600)	600dpi normal paper ≤ B5R +V1 Duplex (Back)	5-30	5 5
7	+V2S-F (600)	600dpi normal paper ≤ B5R +V2 single surface. Duplex (Front)	5-30	22 22
8	+V2S-R (600)	600dpi normal paper ≤ B5R +V2 Duplex (Back)	5-30	18 18
9	+V1 THICK (600)	600dpi thick paper > LTR +V1	5-30	5 5
10	+V2 THICK (600)	600dpi thick paper > LTR +V2	5-30	14 14
11	+V1 THICK S (600)	600dpi thick paper ≤ LTR +V1	5-30	5 5
12	+V2 THICK S (600)	600dpi thick paper ≤ LTR +V2	5-30	18 18
13	+V1 THIN (600)	600dpi thin paper > LTR +V1	5-30	5 5
14	+V2 THIN (600)	600dpi thin paper > LTR +V2	5-30	18 18
15	+V1 THIN S (600)	600dpi thin paper ≤ LTR +V1	5-30	5 5

Item	Content	Setting range	Default	
			*1	*2
16	+V2 THIN S (600)	600dpi thin paper ≤ LTR +V2	5-30	18 18
17	+V1 LABEL (600)	600dpi label paper > LTR +V1	5-30	5 5
18	+V2 LABEL (600)	600dpi label paper > LTR +V2	5-30	18 18
19	+V1 LABEL S (600)	600dpi label paper ≤ LTR +V1	5-30	5 5
20	+V2 LABEL S (600)	600dpi label paper ≤ LTR +V2	5-30	18 18
21	+V1 OHP (600)	600dpi OHP > LTR +V1	5-30	5 5
22	+V2 OHP (600)	600dpi OHP > LTR +V2	5-30	14 14
23	+V1 OHP S (600)	600dpi OHP ≤ LTR +V1	5-30	5 5
24	+V2 OHP S (600)	600dpi OHP ≤ LTR +V2	5-30	18 18
25	+V1 POSTCARD (600)	600dpi postcard/envelope > 100mm +V1	5-30	5 5
26	+V2 POSTCARD (600)	600dpi postcard/envelope > 100mm +V2	5-30	26 26
27	+V1 POSTCARD S (600)	600dpi postcard/envelope ≤ 100mm +V1	5-30	5 5
28	+V2 POSTCARD S (600)	600dpi postcard/envelope ≤ 100mm +V2	5-30	26 26
29	+V1F (1200)	1200dpi normal paper > B5R +V1 single surface. Duplex (Front)	5-30	5 5
30	+V1R (1200)	1200dpi normal paper > B5R +V1 Duplex (Back)	5-30	5 5
31	+V2F (1200)	1200dpi normal paper > B5R +V2 single surface. Duplex (Front)	5-30	12 14
32	+V2R (1200)	1200dpi normal paper > B5R +V2 Duplex (Back)	5-30	10 10
33	+V1S-F (1200)	1200dpi normal paper ≤ B5R +V1 single surface. Duplex (Front)	5-30	5 5
34	+V1S-R (1200)	1200dpi normal paper ≤ B5R +V1 Duplex (Back)	5-30	5 5
35	+V2S-F (1200)	1200dpi normal paper ≤ B5R +V2 single surface. Duplex (Front)	5-30	14 14
36	+V2S-R (1200)	1200dpi normal paper ≤ B5R +V2 Duplex (Back)	5-30	12 12
37	+V1 THICK (1200)	1200dpi thick paper > LTR +V1	5-30	5 5
38	+V2 THICK (1200)	1200dpi thick paper > LTR +V2	5-30	10 10
39	+V1 THICK S (1200)	1200dpi thick paper ≤ LTR +V1	5-30	5 5
40	+V2 THICK S (1200)	1200dpi thick paper ≤ LTR +V2	5-30	12 12
41	+V1 THIN (1200)	1200dpi thin paper > LTR +V1	5-30	5 5
42	+V2 THIN (1200)	1200dpi thin paper > LTR +V2	5-30	12 12
43	+V1 THIN S (1200)	1200dpi thin paper ≤ LTR +V1	5-30	5 5
44	+V2 THIN S (1200)	1200dpi thin paper ≤ LTR +V2	5-30	12 12
45	+V1 LABEL (1200)	1200dpi label paper > LTR +V1	5-30	5 5
46	+V2 LABEL (1200)	1200dpi label paper > LTR +V2	5-30	12 12
47	+V1 LABEL S (1200)	1200dpi label paper ≤ LTR +V1	5-30	5 5
48	+V2 LABEL S (1200)	1200dpi label paper ≤ LTR +V2	5-30	12 12

Item	Content	Setting range	Default	
			*1	*2
49	+V1 OHP (1200)	1200dpi OHP > LTR +V1	5-30	5 5
50	+V2 OHP (1200)	1200dpi OHP > LTR +V2	5-30	8 8
51	+V1 OHP S (1200)	1200dpi OHP ≤ LTR +V1	5-30	5 5
52	+V2 OHP S (1200)	1200dpi OHP ≤ LTR +V2	5-30	12 12
53	+V1 POSTCARD (1200)	1200dpi postcard/envelope > 100mm +V1	5-30	5 5
54	+V2 POSTCARD (1200)	1200dpi postcard/envelope > 100mm +V2	5-30	16 16
55	+V1 POSTCARD S (1200)	1200dpi postcard/envelope ≤ 100mm +V1	5-30	5 5
56	+V2 POSTCARD S (1200)	1200dpi postcard/envelope ≤ 100mm +V2	5-30	16 16

#### SIMULATION 44-34

TC VALUE SETTING. INPUT VALUE 5-30, AND PRESS START.

1: +V1 F (600)	5	2: +V1 R (600)	5	5
3: +V2 F (600)	18	4: +V2 R(600)	14	
5: +V1 S-F(600)	5	6: +V1 S-R(600)	5	1/4
7: +V2 S-F(600)	22	8: +V2 S-R(600)	18	↑
9: +V1 THICK(600)	5	10: +V2 THICK(600)	14	
11: +V1 THICK S(600)	5	12: +V2 THICK S(600)	18	↓
13: +V1 THIN(600)	5	14: +V2 THIN(600)	18	OK

44-35

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to set the DV-Bias/Grid environment (low temperature) correction temperature.

#### Operation/procedure

Enter the set value with the 10-key, and press the [START] key.

Correction is performed when the temperature sensor installed to the MCU indicates 15°C or below.

The content of correction is to raise the DVB-Bias and Grid by -50V.

The simulation allows to vary the correction threshold value in the range of 0 to 20°C.

If, however, the set temperature is increased, correction at a high voltage is performed in normal temperatures.

Setting range	0-20
Default	15°C

#### SIMULATION 44-35

DVB/GRID ENVIRONMENT TEMPERATURE SETTING. INPUT VALUE 0-20, AND PRESS START.

15

44-40

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to set the time from the start of the main motor rotation (Ready) to the start of toner supply in previous rotation after turning on the power.

#### Operation/procedure

Enter the set value with the 10-key, and press the [START] key.

Set the toner supply previous rotation time.

Setting range	1-99 (sec)
Default	4 (sec)

#### SIMULATION 44-40

TONER ROTATE TIME SETTING. INPUT VALUE 1- 99, AND PRESS START.

4

46

46-2

<b>Purpose</b>	Adjustment	
<b>Function (Purpose)</b>	Used to set the exposure level in each exposure mode.	
<b>Item</b>	Picture quality	Density

#### Operation/procedure

1. Touch the item to be adjusted. (Automatic adjustment)  
The currently set value is highlighted beside the adjustment item.
2. Press the [START] key.  
The display is shifted to the copy menu.
3. Select the paper feed tray and the print density.  
Use the 10-key to set the exposure level.
4. Press the [START] key.  
Copying is started.

(Exposure mode)

Item	Content	Setting range	Default
1 AE	AE	1-99	50
2 TEXT	Character Level 3.0		
3 TEXT/PHOTO	Character/Photo Level 3.0		
4 PHOTO	Photo Level 3.0		
5 SUPER PHOTO	Super photo Level 3.0		
6 AE(TS)	AE (TS)		
7 TEXT(TS)	Character (TS) Level 3.0		
8 TEXT/PHOTO(TS)	Character/Photo (TS) Level 3.0		

\* Except for AE and AE (TS), only Level 3 can be set.

Note: When this simulation is canceled, the display returns to the initial menu but the machine is not reset.

#### SIMULATION 46-2

EXP. LEVEL SETUP. INPUT VALUE 1-99, AND PRESS START.

1: AE	50	2: TEXT	50	50
3: TEXT/PHOTO	55	4: PHOTO	50	
5: SUPER PHOTO	50	6: AE(TS)	50	1/1
7: TEXT(TS)	50	8: TEXT/PHOTO(TS)	50	↑
				↓
				OK

46-7

<b>Purpose</b>	Adjustment	
<b>Function (Purpose)</b>	Used to adjust the shift amount and the inclination value for each level (1 to 5) of the exposure mode (Super Photo).	
<b>Item</b>	Picture quality	Density

#### Operation/procedure

1. Touch the item to be adjusted.  
The adjustment item and the currently set value are highlighted.
2. Press the [START] key.  
The display is shifted to the copy menu.
3. Select the paper feed tray and the print density.  
Use the 10-key to set the exposure level.
4. Press the [START] key.  
Copying is started.

(Exposure mode (Super Photo))

Item	Content	Setting range	Default
1 1.0(SHIFT)	Super photo level 1.0 (shift q'ty)	1-99	32
2 1.0(GAMMA)	Super photo level 1.0 (slant)	1-99	50
3 2.0(SHIFT)	Super photo level 2.0 (shift q'ty)	1-99	41
4 2.0(GAMMA)	Super photo level 2.0 (slant)	1-99	50
5 3.0(SHIFT)	Super photo level 3.0 (shift q'ty)	1-99	50
6 3.0(GAMMA)	Super photo level 3.0 (slant)	1-99	50
7 4.0(SHIFT)	Super photo level 4.0 (shift q'ty)	1-99	56
8 4.0(GAMMA)	Super photo level 4.0 (slant)	1-99	61
9 5.0(SHIFT)	Super photo level 5.0 (shift q'ty)	1-99	62
10 5.0(GAMMA)	Super photo level 5.0 (slant)	1-99	66

Note: When this simulation is canceled, the display returns to the initial menu but the machine is not reset.

SIMULATION 46-7  
EXP. LEVEL SETUP(SUPER PHOTO). INPUT VALUE 1-99, AND PRESS START.  
1: 1.0(SHIFT) 32 2: 1.0(GAMMA) 50 32  
3: 2.0(SHIFT) 41 4: 2.0(GAMMA) 50 1/1  
5: 3.0(SHIFT) 50 6: 3.0(GAMMA) 50  
7: 4.0(SHIFT) 56 8: 4.0(GAMMA) 61  
9: 5.0(SHIFT) 62 10: 5.0(GAMMA) 66  
OK

46-9

Purpose	Adjustment
Function (Purpose)	Used to adjust the shift amount and the inclination value for each level (1 to 5) of the exposure mode (Text).
Item	Picture quality Density

**Operation/procedure**

- Touch the item to be adjusted.  
The adjustment item and the currently set value are highlighted.
- Press the [START] key.  
The display is shifted to the copy menu.
- Select the paper feed tray and the print density.  
Use the 10-key to set the exposure level.
- Press the [START] key.  
Copying is started.

(Exposure mode (Text))

Item	Content	Setting range	Default
1 1.0 (SHIFT)	Character level 1.0 (shift q'ty)	1-99	22
2 1.0 (GAMMA)	Character level 1.0 (slant)	1-99	44
3 2.0 (SHIFT)	Character level 2.0 (shift q'ty)	1-99	36
4 2.0 (GAMMA)	Character level 2.0 (slant)	1-99	47
5 3.0 (SHIFT)	Character level 3.0 (shift q'ty)	1-99	50
6 3.0 (GAMMA)	Character level 3.0 (slant)	1-99	50
7 4.0 (SHIFT)	Character level 4.0 (shift q'ty)	1-99	61
8 4.0 (GAMMA)	Character level 4.0 (slant)	1-99	55
9 5.0 (SHIFT)	Character level 5.0 (shift q'ty)	1-99	72
10 5.0 (GAMMA)	Character level 5.0 (slant)	1-99	60
11 TS 1.0 (SHIFT)	Character (TS) level 1.0 (shift q'ty)	1-99	22
12 TS 1.0 (GAMMA)	Character (TS) level 1.0 (slant)	1-99	44
13 TS 2.0 (SHIFT)	Character (TS) level 2.0 (shift q'ty)	1-99	36

Item	Content	Setting range	Default
14 TS 2.0 (GAMMA)	Character (TS) level 2.0 (slant)	1-99	47
15 TS 3.0 (SHIFT)	Character (TS) level 3.0 (shift q'ty)	1-99	50
16 TS 3.0 (GAMMA)	Character (TS) level 3.0 (slant)	1-99	50
17 TS 4.0(SHIFT)	Character (TS) level 4.0 (shift q'ty)	1-99	61
18 TS 4.0 (GAMMA)	Character (TS) level 4.0 (slant)	1-99	55
19 TS 5.0 (SHIFT)	Character (TS) level 5.0 (shift q'ty)	1-99	72
20 TS 5.0 (GAMMA)	Character (TS) level 5.0 (slant)	1-99	60

Note: When this simulation is canceled, the display returns to the initial menu but the machine is not reset.

SIMULATION 46-9  
EXP. LEVEL SETUP(TEXT). INPUT VALUE 1-99, AND PRESS START.  
1: 1.0(SHIFT) 22 2: 1.0(GAMMA) 44 22  
3: 2.0(SHIFT) 36 4: 2.0(GAMMA) 47  
5: 3.0(SHIFT) 50 6: 3.0(GAMMA) 50 1/2  
7: 4.0(SHIFT) 61 8: 4.0(GAMMA) 55  
9: 5.0(SHIFT) 72 10: 5.0(GAMMA) 60  
11: TS 1.0(SHIFT) 22 12: TS 1.0(GAMMA) 44  
13: TS 2.0(SHIFT) 36 14: TS 2.0(GAMMA) 47  
OK

46-10

Purpose	Adjustment
Function (Purpose)	Used to adjust the shift amount and the inclination value for each level (1 to 5) of the exposure mode (Text/Photo).
Item	Picture quality

**Operation/procedure**

- Touch the item to be adjusted.  
The adjustment item and the currently set value are highlighted.
- Press the [START] key.  
The display is shifted to the copy menu.
- Select the paper feed tray and the print density.  
Use the 10-key to set the exposure level.
- Press the [START] key.  
Copying is started.

(Exposure mode (Text/Photo))

Item	Content	Setting range	Default
1 1.0 (SHIFT)	Character/Photo level 1.0 (shift q'ty)	1-99	30
2 1.0 (GAMMA)	Character/Photo level 1.0 (slant)	1-99	37
3 2.0 (SHIFT)	Character/Photo level 2.0 (shift q'ty)	1-99	40
4 2.0 (GAMMA)	Character/Photo level 2.0 (slant)	1-99	43
5 3.0 (SHIFT)	Character/Photo level 3.0 (shift q'ty)	1-99	50
6 3.0 (GAMMA)	Character/Photo level 3.0 (slant)	1-99	50
7 4.0 (SHIFT)	Character/Photo level 4.0 (shift q'ty)	1-99	57
8 4.0 (GAMMA)	Character/Photo level 4.0 (slant)	1-99	61
9 5.0 (SHIFT)	Character/Photo level 5.0 (shift q'ty)	1-99	64

Item		Content	Setting range	Default
10	5.0 (GAMMA)	Character/Photo level 5.0 (slant)	1-99	66
11	TS 1.0 (SHIFT)	Character/Photo (TS) level 1.0 (shift q'ty)	1-99	30
12	TS 1.0 (GAMMA)	Character/Photo (TS) level 1.0 (slant)	1-99	37
13	TS 2.0 (SHIFT)	Character/Photo (TS) level 2.0 (shift q'ty)	1-99	40
14	TS 2.0 (GAMMA)	Character/Photo (TS) level 2.0 (slant)	1-99	43
15	TS 3.0 (SHIFT)	Character/Photo (TS) level 3.0 (shift q'ty)	1-99	50
16	TS 3.0 (GAMMA)	Character/Photo (TS) level 3.0 (slant)	1-99	50
17	TS 4.0 (SHIFT)	Character/Photo (TS) level 4.0 (shift q'ty)	1-99	57
18	TS 4.0 (GAMMA)	Character/Photo (TS) level 4.0 (slant)	1-99	61
19	TS 5.0 (SHIFT)	Character/Photo (TS) level 5.0 (shift q'ty)	1-99	64
20	TS 5.0 (GAMMA)	Character/Photo (TS) level 5.0 (slant)	1-99	66

Note: When this simulation is canceled, the display returns to the initial menu but the machine is not reset.

SIMULATION 46-10

EXP. LEVEL SETUP(TEXT/PHOTO). INPUT VALUE 1-99, AND PRESS START.

1: 1.0(SHIFT)	30	2: 1.0(GAMMA)	37	30
3: 2.0(SHIFT)	40	4: 2.0(GAMMA)	43	1/2
5: 3.0(SHIFT)	50	6: 3.0(GAMMA)	50	↑
7: 4.0(SHIFT)	57	8: 4.0(GAMMA)	61	
9: 5.0(SHIFT)	64	10: 5.0(GAMMA)	66	↓
11: TS 1.0(SHIFT)	30	12: TS 1.0(GAMMA)	37	OK
13: TS 2.0(SHIFT)	40	14: TS 2.0(GAMMA)	43	

46-11

<b>Purpose</b>	Adjustment	
<b>Function (Purpose)</b>	Used to adjust the shift amount and the inclination value for each level (1 to 5) of the exposure mode (Photo).	
<b>Item</b>	Picture quality	Density

#### Operation/procedure

- Touch the item to be adjusted.  
The adjustment item and the currently set value are highlighted.
- Press the [START] key.  
The display is shifted to the copy menu.
- Select the paper feed tray and the print density.  
Use the 10-key to set the exposure level.
- Press the [START] key.  
Copying is started.

(Exposure mode (Photo))

Item	Content	Setting range	Default
1	1.0(SHIFT)	1-99	32
2	1.0(GAMMA)		50
3	2.0(SHIFT)		41
4	2.0(GAMMA)		50
5	3.0(SHIFT)		50
6	3.0(GAMMA)		50
7	4.0(SHIFT)		56
8	4.0(GAMMA)		61
9	5.0(SHIFT)		62
10	5.0(GAMMA)		66

Note: When this simulation is canceled, the display returns to the initial menu but the machine is not reset.

SIMULATION 46-11

EXP. LEVEL SETUP(PHOTO). INPUT VALUE 1-99, AND PRESS START.

1: 1.0(SHIFT)	32	2: 1.0(GAMMA)	50	32
3: 2.0(SHIFT)	41	4: 2.0(GAMMA)	50	1/1
5: 3.0(SHIFT)	50	6: 3.0(GAMMA)	50	↑
7: 4.0(SHIFT)	56	8: 4.0(GAMMA)	61	
9: 5.0(SHIFT)	62	10: 5.0(GAMMA)	66	↓
				OK

46-12

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	FAX exposure level adjustment (1 mode automatic adjustment)
<b>Section</b>	FAX
<b>Item</b>	Image quality

#### Operation/procedure

- Select "1: COPY START."  
The currently set value is displayed beside the item.
- Enter the set value of the exposure level with the 10-key, and press the [#P] key.
- Press the [START] key.  
Copying is started and the set value is stored.

Normal display	NOW PRINTING
Error display	DOOR OPEN
	JAM
	PAPER EMPTY

There is no tray selection operation.

The optimum paper tray for the scanned size is selected.

Item		Setting range	Default
1	COPY START	—	—
2	FAX EXP.LEVEL	0-99	50

Note: Executable only when the FAX is installed.

SIMULATION 46-12

EXP. LEVEL SETUP FAX(AUTO SET). SELECT 1-2, AND PRESS START.

1

1. COPY START	
2. FAX EXP. LEVEL	50

46-13

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	FAX exposure level adjustment (Normal mode individual adjustment)
<b>Section</b>	FAX
<b>Item</b>	Image quality

#### Operation/procedure

- Select "1: COPY START."  
The currently set value is displayed beside the item.
- Enter the set value of the exposure level with the 10-key, and press the [#P] key.
- Press the [START] key.  
Copying is started and the set value is stored.

Normal display	NOW PRINTING
Error display	DOOR OPEN
	JAM
	PAPER EMPTY

There is no tray selection operation.

The optimum paper tray for the scanned size is selected.

Item	Content	Setting range	Default
1	COPY START	Copy start	—
2	EXP.LEVEL	Exposure level selection	0-99
3	AE	Normal text AE	
4	MANUAL	Normal text MANUAL	

Note: Executable only when the FAX is installed.

SIMULATION 46-13	
EXP. LEVEL SETUP FAX (NORMAL). SELECT 1-4, AND PRESS START.	
1. COPY START	
2. EXP. LEVEL	3
3. AE	50
4. MANUAL	50

46-14

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	FAX exposure level adjustment (Fine text mode individual adjustment)
<b>Section</b>	FAX
<b>Item</b>	Image quality

#### Operation/procedure

- Select "1: COPY START."  
The currently set value is displayed beside the item.
- Enter the set value of the exposure level with the 10-key, and press the [#P] key.
- Press the [START] key.  
Copying is started and the set value is stored.

Normal display	NOW PRINTING
Error display	DOOR OPEN
	JAM
	PAPER EMPTY

There is no tray selection operation.

The optimum paper tray for the scanned size is selected.

Item	Content	Setting range	Default
1	COPY START	Copy start	—
2	EXP.LEVEL	Exposure level selection	0-99
3	AE (PHOTO ON)	Fine text AE (Half tone)	
4	AE (PHOTO OFF)	Fine text AE	
5	MANUAL (PHOTO ON)	Fine text MANUAL (Half tone)	
6	MANUAL (PHOTO OFF)	Fine text MANUAL	

Note: Executable only when the FAX is installed.

SIMULATION 46-14	
EXP. LEVEL SETUP FAX (FINE). SELECT 1-6, AND PRESS START.	
1. COPY START	
2. EXP. LEVEL	3
3. AE (PHOTO ON)	50
4. AE (PHOTO OFF)	50
5. MANUAL (PHOTO ON)	50
6. MANUAL (PHOTO OFF)	50

46-15

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	FAX exposure level adjustment (Super Fine mode individual adjustment)
<b>Section</b>	FAX
<b>Item</b>	Image quality

#### Operation/procedure

- Select "1: COPY START."  
The currently set value is displayed beside the item.

- Enter the set value of the exposure level with the 10-key, and press the [#P] key.
- Press the [START] key.  
Copying is started and the set value is stored.

Normal display	NOW PRINTING
Error display	DOOR OPEN
	JAM
	PAPER EMPTY

There is no tray selection operation.

The optimum paper tray for the scanned size is selected.

Item	Content	Setting range	Default
1	COPY START	Copy start	—
2	EXP.LEVEL	Exposure level selection	0 - 99
3	AE (PHOTO ON)	Super Fine AE (Half tone)	
4	AE (PHOTO OFF)	Super Fine AE	
5	MANUAL (PHOTO ON)	Super Fine MANUAL (Half tone)	
6	MANUAL (PHOTO OFF)	Super Fine MANUAL	

Note: Executable only when the FAX is installed.

SIMULATION 46-15	
EXP. LEVEL SETUP FAX (SUPER FINE). SELECT 1-6, AND PRESS START.	
1. COPY START	
2. EXP. LEVEL	3
3. AE (PHOTO ON)	50
4. AE (PHOTO OFF)	50
5. MANUAL (PHOTO ON)	50
6. MANUAL (PHOTO OFF)	50

46-16

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	FAX exposure level adjustment (Ultra Fine mode individual adjustment)
<b>Section</b>	FAX
<b>Item</b>	Image quality

#### Operation/procedure

- Select "1: COPY START."  
The currently set value is displayed beside the item.
- Enter the set value of the exposure level with the 10-key, and press the [#P] key.
- Press the [START] key.  
Copying is started and the set value is stored.

Normal display	NOW PRINTING
Error display	DOOR OPEN
	JAM
	PAPER EMPTY

There is no tray selection operation.

The optimum paper tray for the scanned size is selected.

Item	Content	Setting range	Default
1	COPY START	Copy start	—
2	EXP.LEVEL	Exposure level selection	0 - 99
3	AE (PHOTO ON)	Ultra Fine AE (Half tone)	
4	AE (PHOTO OFF)	Ultra Fine AE	
5	MANUAL (PHOTO ON)	Ultra Fine MANUAL (Half tone)	
6	MANUAL (PHOTO OFF)	Ultra Fine MANUAL	

Note: Executable only when the FAX is installed.

# SIMULATION 46-16

EXP. LEVEL SETUP FAX (ULTRA FINE). SELECT 1-6, AND PRESS START.

1. COPY START
2. EXP. LEVEL : 3
3. AE (PHOTO ON) : 50
4. AE (PHOTO OFF) : 50
5. MANUAL (PHOTO ON) : 50
6. MANUAL (PHOTO OFF) : 50

1

46-18

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	Used to adjust inclination for each exposure mode.
<b>Item</b>	Picture quality

## Operation/procedure

1. Touch the item to be adjusted.  
The adjustment item and the current set value are highlighted.
2. Press the [START] key.  
The display is shifted to the copy menu.
3. Select the paper feed tray and the print density.  
Set the exposure level with the 10-key.
4. Press the [START] key.  
Copying is started.

(Auto adjustment)

Item	Content	Setting range	Default
1 AE	AE	1-99	50
2 TEXT	Character Level 3.0		
3 TEXT/PHOTO	Character/Photo Level 3.0		
4 PHOTO	Photo Level 3.0		
5 SUPER PHOTO	Super photo Level 3.0		
6 AE(TS)	AE(TS)		
7 TEXT(TS)	Character (TS) Level 3.0		
8 TEXT/PHOTO(TS)	Character/Photo (TS) Level 3.0		

Note: When this simulation is canceled, the display returns to the initial menu but the machine is not reset.

# SIMULATION 46-18

GAMMA SETUP. INPUT VALUE 1-99, AND PRESS START.

- 1: AE 50
- 2: TEXT 50
- 3: TEXT/PHOTO 50
- 4: PHOTO 50
- 5: SUPER PHOTO 50
- 6: AE(TS) 50
- 7: TEXT(TS) 50
- 8: TEXT/PHOTO(TS) 50

1/1

↓

OK

46-19

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	Used to set the control method of the exposure mode.
<b>Item</b>	Picture quality

## Operation/procedure

1. Touch the item to be adjusted.  
The currently set value is highlighted beside the adjustment item.
2. Press the [START] key.  
The display is shifted to the adjustment value entry menu.
3. Enter the adjustment value with the 10-key, and press the [START] key.

When the [CUSTOM SETTINGS] key is pressed, the display returns to the original state (adjustment item selection menu).

Item	Content	Default
1 AE MODE (1:EXPOSURE 2:TONER)	Auto exposure mode* (1: Priority on Image quality, 2: Priority on toner consumption)	2
2 AE STOP(COPY) (0:FIXED 1:REAL TIME)	Auto exposure STOP mode (COPY) (0: Fixed, 1: Real-time)	0
3 AE STOP(FAX) (0:FIXED 1:REAL TIME)	Auto exposure STOP mode (FAX) (0: Fixed, 1: Real-time)	0
4 AE STOP(SCAN) (0:FIXED 1:REAL TIME)	Auto exposure STOP mode (SCANNER) (0: Fixed, 1: Real-time)	0

\* Auto exposure mode

- When SIM 26-6 (Destination setup) is changed from EX Japan to Japan, the setup value becomes 1 (Default: Japan). If, on the contrary, it is changed from Japan to EX Japan, the set value becomes 2 (Default: EX Japan)
- If the auto exposure mode setup value is changed, the setup value of SIM 46-30 (AE limit setup) is reset to the default value.

# SIMULATION 46-19

EXP. MODE SETUP. SELECT 1-4, AND PRESS START.

- 1:AE MODE 1
- 2:AE STOP(COPY) 0
- 3:AE STOP(FAX) 0
- 4:AE STOP(SCAN) 0

1

46-20

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	Used to set the exposure correction value of SPF/ RSPF for OC exposure.
<b>Item</b>	Picture quality

## Operation/procedure

1. Touch the item to be adjusted.  
The adjustment item and the currently set value are highlighted.
2. Enter the set value with the 10-key.

Item	Content	Setting range	Default
1 SPF EXPOSURE	SPF	1-99	53
2 RSPF EXPOSURE	RSPF		

# SIMULATION 46-20

SPF EXP. ADJUSTMENT. SELECT 1-99, AND PRESS START.

- 1: SPF EXPOSURE 53
- 2: RSPF EXPOSURE 53

53

1/1

↑

↓

OK

46-30

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to set the AE and the limit value in AE (Toner save).

## Operation/procedure

1. Touch the item to be adjusted.  
The adjustment item and the currently set value are highlighted.
2. Enter the set value with the 10-key.

If SIM 26-6 (Destination setup) and SIM46-19 (Auto exposure mode) are changed, this setup is also changed to the default value accordingly.

Item	Setting range	Default
1 AE	0-31	0
2 AE(TS)		

**SIMULATION 46-30**  
AE LIMIT SETTING. INPUT VALUE 0-31, AND PRESS START.

1: AE	0	0
2: AE(TS)	0	

1/1

↑

↓

OK

46-31

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to set the AE and the limit value in AE (Toner save).

#### Operation/procedure

1. Touch the item to be adjusted.  
The adjustment item and the currently set value are highlighted.
2. Enter the set value with the 10-key.

Item	Setting range	Default
1 AE	0 - 2	1
2 TEXT		
3 TEXT/PHOTO		
4 PHOTO		
5 SUPER PHOTO		

**SIMULATION 46-31**  
SHARPNESS SETTING. INPUT VALUE 0-2, AND PRESS START.

1: AE	1	1
2: TEXT	1	
3: TEXT/PHOTO	1	
4: PHOTO	1	
5: SUPER PHOTO	1	

1/1

↑

↓

OK

46-39

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to switch the FAX send image quality.

Enter the set value with the 10-key.

Item	Content	Setting range	Default
0 HAIRLINE	Original with pencil lines and thin lines	0 - 1	0
1 PRINTER	Printed original		

**SIMULATION 46-39**  
FAX DOCUMENT TYPE SETTING. SELECT 0-1, AND PRESS START.

0:HAIRLINE	0
1:PRINTED	

48

48-1

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	Used to adjust the copy mode magnification ratio (main scanning direction, sub scanning direction).
<b>Section</b>	Image processing
<b>Item</b>	Picture quality

#### Operation/procedure

1. Touch the item to be set.  
The item and the currently set value are highlighted.
2. Press the [START] key.  
The display is shifted to the copy menu.
3. Select the paper feed tray and the print density, and enter the adjustment value with the 10-key.
4. Press the [START] key.  
Copying is started.

Item	Content	Setting range	Default
1 F-R	Main scanning magnification ratio adjustment	1-99	50
2 SCAN	Sub scanning magnification ratio adjustment		60
3 SPF/RSPF (SIDE1)	SPF/RSPF surface sub scan magnification ratio		50
4 SPF/RSPF (SIDE2)	SPF/RSPF back surface sub scan magnification ratio		
5 DUPLEX	DUPLEX sub scanning magnification ratio adjustment		

Note: When this simulation is canceled, the display is shifted to the initial menu, but the machine is not reset.

**SIMULATION 48-1**  
COPY MAGNIFICATION ADJUSTMENT. INPUT VALUE 1-99, AND PRESS START.

1: F-R	50	50
2: SCAN	60	
3: SPF(SIDE1)	50	
4: SPF(SIDE2)	50	
5: DUPLEX	50	

1/1

↑

↓

OK

48-2

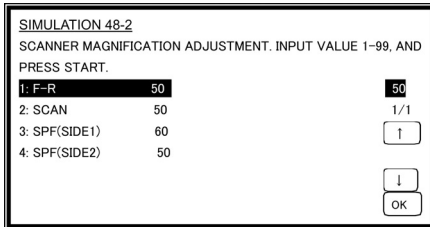
<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	Used to adjust the scanner mode magnification ratio (main/sub scanning direction).
<b>Section</b>	Image processing
<b>Item</b>	Picture quality

#### Operation/procedure

1. Touch the item to be set.  
The item and the currently set value are highlighted.
2. Press the [START] key.  
The display is shifted to the copy menu.
3. Select the paper feed tray and the print density, and enter the adjustment value with the 10-key.
4. Press the [START] key.  
Copying is started.



Item	Content	Setting range	Default
1 F-R	Main scanning magnification ratio adjustment	1-99	50
2 SCAN	Sub scanning magnification ratio adjustment		
3 SPF (SIDE1)	RSPF surface sub scan magnification ratio		
4 SPF (SIDE2)	RSPF back surface sub scan magnification ratio		



48-8

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	FAX magnification adjustment (read)
<b>Section</b>	FAX
<b>Related soft SW</b>	SW112-1 to 8, SW113-1 to 8

#### Operation/procedure

- Select "1: COPY START."  
The currently set value is highlighted beside the item.
- Enter the set value of magnification with the 10-key, and press the [#P] key.
- Press the [START] key.  
Copying is started and the set value is stored.

Normal display	NOW PRINTING
Error display	DOOR OPEN
	JAM
	PAPER EMPTY

There is no operation of tray selection.

The optimum paper tray for the scanned size is selected.

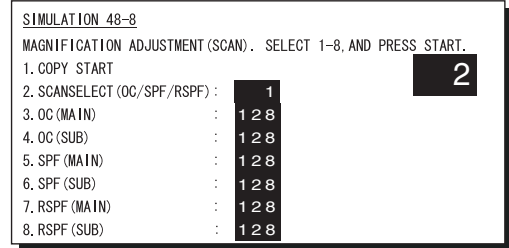
Even when the SPF/RSPF is selected, if there is no original on the SPF/RSPF, the OC is scanned.

Even when the OC is selected, if there is any original on the SPF/RSPF, the SPF/RSPF is scanned. (Setting 2)

Item	Content	Setting range	Default
1 COPY START	Copy start	—	—
2 SCAN SELECT (OC/SPF/RSPF)	Scan selection (OC/SPF/RSPF)	1-255*	128
3 OC(MAIN)	SCAN Main scanning magnification ratio adjustment (OC)	1-255*	128
4 OC(SUB)	SCAN Sub scanning magnification ratio adjustment (OC)	1-255*	128
5 SPF(MAIN)	SCAN Main scanning magnification ratio adjustment (SPF)	1-255*	128
6 SPF(SUB)	SCAN Sub scanning magnification ratio adjustment (SPF)	1-255*	128
7 RSPF(MAIN)	SCAN Main scanning magnification ratio adjustment (RSPF)	1-255*	128
8 RSPF(SUB)	SCAN Sub scanning magnification ratio adjustment (RSPF)	1-255*	128

\* The adjustment can be made in the range of -12.7% - +12.7% by the increment of 0.1%.

Note: Executable only when the FAX is installed.



48-9

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	FAX magnification adjustment (print)
<b>Section</b>	FAX

#### Operation/procedure

- Select "1: COPY START."  
The currently set value is displayed beside the item.
- Press the [START] key.  
Copying is started and the set value is stored.

Normal display	NOW PRINTING
Error display	DOOR OPEN
	JAM
	PAPER EMPTY

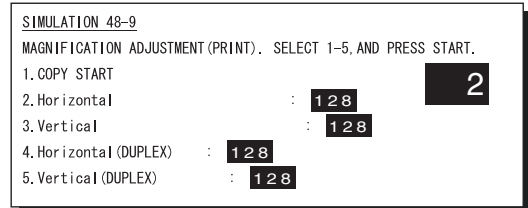
There is no operation of tray selection.

The optimum paper tray for the scanned size is selected.

When two pages are scanned, duplex printing is made.

Item	Content	Setting range	Default
1 COPY START	Copy start	1-255	128
2 Horizontal	Print magnification ratio adjustment (Horizontal, vertical to paper passing)	1-255	128
3 Vertical	Print magnification ratio adjustment (Vertical, parallel to paper passing)	1-255	128
4 Horizontal (DUPLEX)	Print magnification ratio adjustment on the back surface (Horizontal, vertical to paper passing)	1-255	128
5 Vertical (DUPLEX)	Print magnification ratio adjustment on the back surface (Vertical, parallel to paper passing)	1-255	128

Note: Executable only when the FAX is installed.



50

50-1

<b>Purpose</b>	Adjustment	
<b>Function (Purpose)</b>	Used to adjust the copy lead edge position.	
<b>Item</b>	Picture quality	Image position

## Operation/procedure

1. Touch the item to be adjusted.  
The item and the currently set value are highlighted.
2. Enter the adjustment value with the 10-key and press the [P] key.,  
The display goes to the copy menu.  
When the [START] key is pressed, the display goes to the copying state and print is started.

(When the [P] key is pressed: Copy menu)

3. Select the paper feed tray and the print density.  
Enter the exposure level with the 10-key.
4. Press the [START] key.  
Copying is started.

Note: When this simulation is canceled, the display is shifted to the initial menu, but the machine is not reset.

(Adjustment procedure)

1. Note down the adjustment value of SIM 50-5 (Items 1, 2, 3, 4), and change the value to 99.
2. Set SIM 50-1 (Items 2, 3, 4, 5) to 1. (By setting to 1, there is no void.)
3. Place a chart with a clear lead edge (or a ruler) on the OC document table.
4. Use SIM 50-1 (Item 1) to execute test print. Check the print out and adjust so that the lead edge image is printed. (1 - 99: About 0.127mm/Step)
5. Reset the adjustment values of SIM 50-5 (Items 1, 2, 3, 4) to the original values, and execute test print. Check the print out and adjust so that the lead edge image is printed on the lead edge of paper. (1 - 99: About 0.127mm/Step).
6. Adjust SIM 50-1 (Items 2, 3, 4, 5) so that the lead edge void on the print out is the specified value. (1 - 99: About 0.127mm/Step)
7. Similar to procedure 6, adjust SIM 50-1 (Item 6, 7) so that the rear edge void is the specified value. (1 - 99: About 0.127mm/Step)
8. Similar to procedure 6, adjust SIM 50-1 (Item 8, 9) so that the left edge void is the specified value. (1 - 99: About 0.127mm/Step)
9. Make an enlargement copy (400%), and check that there is no shade of the cabinet printed at the lead edge.
10. If there is a shade printed at the lead edge in procedure 9, adjust SIM 50-1 (Item 10). (1 - 5: About 0.677mm)

\* If there is no problem, set to 2.

Item	Content	Setting range	Default
1	RRC-A Original scan start position adjustment Lead edge position adjustment value (OC)	1-99	43
2	DEN-A Lead edge cancel adjustment (Main cassette)	1-99	18
3	DEN-A-MANUAL Lead edge cancel adjustment (Manual feed cassette)	1-99	18
4	DEN-A -OPTION Lead edge cancel adjustment (Option cassette)	1-99	18
5	DEN-A -DUPLEX Lead edge cancel adjustment (back of the machine)	1-99	18
6	DEN-B Rear edge void adjustment	1-99	30
7	DEN-B-DUP Rear edge void adjustment (Duplex)	1-99	50
8	SIDE VOID Left edge void adjustment (First print surface)	1-99	18
9	SIDE VOID-DUP Left edge void adjustment (Duplex)	1-99	18
10	LOSS(OC) Image loss amount adjustment (Lead edge image loss set value) (OC)	1-5	3

SIMULATION 50-1			
LEAD EDGE ADJUSTMENT. INPUT VALUE 1-99, AND PRESS START.			
1: RRC-A	43	2: DEN-A	18
3: DEN-A -MANUAL	18	4: DEN-A -OPTION	18
5: DEN-A -DUPLEX	18	6: DEN-B	30
7: DEN-B-DUP	50	8: SIDE VOID	18
9: SIDE VOID-DUP	18	10: LOSS(OC)	3
		1/1	
		↑	
		↓	
		OK	

50-5

Purpose	Adjustment
Function (Purpose)	Used to adjust the print image position (top margin) on the print paper in the print mode.
Item	Picture quality      Print area

## Operation/procedure

1. Touch the item to be adjusted.  
The item and the currently set value are highlighted.
2. Enter the adjustment value with the 10-key and press the [P] key.,  
The display goes to the copy menu.  
When the [START] key is pressed, the display goes to the copying state and print is started.

(When the [P] key is pressed: Copy menu)

3. Select the paper feed tray and the print density.  
Enter the exposure level with the 10-key.
4. Press the [START] key.  
Copying is started.

Note: When this simulation is canceled, the display is shifted to the initial menu, but the machine is not reset.

Item	Content	Setting range	Default
1	TRAY1	1st cassette	53
2	OPTION	Option cassette	
3	MANUAL	Manual feed	
4	DUPLEX	Back print	

SIMULATION 50-5			
LEAD EDGE ADJUSTMENT(PRINT). INPUT VALUE 0-99, AND PRESS START.			
1: TRAY1	53		53
2: OPTION	53		1/1
3: MANUAL	53		↑
4: DUPLEX	53		↓
		OK	

50-6

Purpose	Adjustment
Function (Purpose)	Used to adjust the print image position (top margin) on print paper in the copy mode. (SPF/RSPF)
Item	Picture quality      Image position

## Operation/procedure

1. Touch the item to be adjusted.  
The item and the currently set value are highlighted.
2. Enter the adjustment value with the 10-key and press the [P] key.,  
The display goes to the copy menu.  
When the [START] key is pressed, the display goes to the copying state and print is started.

(When the [P] key is pressed: Copy menu)

3. Select the paper feed tray and the print density.  
Enter the exposure level with the 10-key.
4. Press the [START] key.  
Copying is started.

Note: When this simulation is canceled, the display is shifted to the initial menu, but the machine is not reset.

Item	Content	Setting range	Default
1 SIDE1	Surface original scan start position adjustment value	1-99	50
2 SIDE2	Back original scan start position set value	1-99	50
3 END EDGE	Rear edge void adjustment value (SPF/RSPF)	1-99	50
4 LOSS(SIDE1)	Surface image loss quantity set value	1-5	3
5 LOSS(SIDE2)	Back image loss quantity set value	1-5	3
6 REARLOS(SIDE1)	Surface rear edge image loss quantity set value	1-5	3
7 REARLOS(SIDE2)	Back rear edge image loss quantity set value	1-5	3

**SIMULATION 50-6**  
LEAD EDGE ADJUSTMENT(SPF/RSPF). INPUT VALUE 1-99, AND PRESS START.

1: SIDE1	50	50
2: SIDE2	50	1/1
3: END EDGE	50	↑
4: LOSS(SIDE1)	3	
5: LOSS(SIDE2)	3	
6: REARLOS(SIDE1)	3	↓
7: REARLOS(SIDE2)	3	OK

50-8

**The adjustments on the machine side must have been normally completed.**

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	FAX lead edge adjustment (read)
<b>Section</b>	FAX

#### Operation/procedure

- Select "1: COPY START."  
The currently set value is highlighted beside the item.
- Enter the correction value with the 10-key, and press the [#]/P key.
- Press the [START] key.  
Copying is started.

Normal display	NOW PRINTING
Error display	DOOR OPEN
	JAM
	PAPER EMPTY

There is no tray selection operation.

The optimum paper tray for the scanned size is selected.

- Select the scanning method.

Even when the SPF/RSPF is selected, if there is no original on the SPF/RSPF, the OC is scanned.

Even when the OC is selected, if there is any original on the SPF/RSPF, the SPF/RSPF is scanned. (Setting 2)

Item	Content	Setting range	Default
1 COPY START	Copy start	—	—
2 SCAN SELECT (OC/SPF/RSPF)	Scan selection (1: OC, 2: SPF, 3: RSPF back)	1-3	1
3 LEAD	Scan lead edge position adjustment value of the selected method in 2.	43-57	50
4 LEFT	Scan left edge position adjustment value of the selected method in 2.	43-57	50

Item	Content	Setting range	Default
5 REAR	Scan rear edge position adjustment value of the selected method in 2.	43-57	50
6 RIGHT	Scan right edge position adjustment value of the selected method in 2.	43-57	50

Note: Executable only when the FAX is installed.

**SIMULATION 50-8**  
FAX SCAN IMAGELOSS ADJUSTMENT. SELECT 1-6, AND PRESS START.

1. COPY START

2. SCAN SELECT (OC/SPF/RSPF) : 1

3. LEAD : 50

4. LEFT : 50

5. REAR : 50

50-9

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	FAX lead edge adjustment (print)
<b>Section</b>	FAX

#### Operation/procedure

- Select "1: COPY START."  
The currently set value is highlighted beside the item.
- Press the [START] key.  
Copying is started.

Normal display	NOW PRINTING
Error display	DOOR OPEN
	JAM
	PAPER EMPTY

There is no tray selection operation.

The optimum paper tray for the scanned size is selected.

When two pages are scanned, duplex print is made,

Item	Content	Setting range	Default
1 COPY START	Copy start	—	—
2 LEAD	Print lead edge void adjustment value (Front surface)	43-57	50
3 LEFT	Print left edge void adjustment value (Front surface)	43-57	50
4 REAR	Print rear edge void adjustment value (Front surface)	43-57	50
5 LEAD (DUPLEX)	Print lead edge void adjustment value (Back surface)	43-57	50
6 LEFT (DUPLEX)	Print left edge void adjustment value (Back surface)	43-57	50
7 REAR (DUPLEX)	Print rear edge void adjustment value (Back surface)	43-57	50

Note: Executable only when the FAX is installed.

**SIMULATION 50-9**  
FAX PRINT VOID ADJUSTMENT. SELECT 1-7, AND PRESS START.

1. COPY START

2. LEAD : 50

3. LEFT : 50

4. REAR : 50

5. LEAD (DUPLEX) : 50

6. LEFT (DUPLEX) : 50

7. REAR (DUPLEX) : 50

<b>Purpose</b>	Adjustment	
<b>Function (Purpose)</b>	Used to adjust the print image center position. (Adjustment can be made for each paper feed section.)	
<b>Section</b>	Image processing (ICU)	
<b>Item</b>	Picture quality	Image position

**Operation/procedure**

1. Touch the item to be adjusted.  
The item and the currently set value are highlighted.
2. Enter the adjustment value with the 10-key and press the [P] key.,  
The display goes to the copy menu.  
When the [START] key is pressed, the display goes to the copying state and print is started.

(When the [P] key is pressed: Copy menu)

3. Select the paper feed tray and the print density.  
Enter the exposure level with the 10-key.
4. Press the [START] key.  
Copying is started.

Note: When this simulation is canceled, the display is shifted to the initial menu, but the machine is not reset.

Item	Content	Setting range	Default
1	BYPASS	1-99	50
2	TRAY1		
3	TRAY2		
4	TRAY3		
5	TRAY4		
6	DUPLEX		

SIMULATION 50-10			
PRINT OFF-CENTER ADJUSTMENT. INPUT VALUE 1-99, AND PRESS START.			
1: BYPASS	50	50	
2: TRAY1	50	1/1	
3: TRAY2	50	↑	
4: TRAY3	50		
5: TRAY4	50	↓	
6: DUPLEX	50	OK	

<b>Purpose</b>	Adjustment	
<b>Function (Purpose)</b>	Used to adjust the print image center position. (Adjustment can be made for each document mode.)	
<b>Section</b>	Image processing	
<b>Item</b>	Picture quality	Image position

**Operation/procedure**

1. Touch the item to be adjusted.  
The item and the currently set value are highlighted.
2. Enter the adjustment value with the 10-key and press the [P] key.,  
The display goes to the copy menu.  
When the [START] key is pressed, the display goes to the copying state and print is started.

(When the [P] key is pressed: Copy menu)

3. Select the paper feed tray and the print density.  
Enter the exposure level with the 10-key.
4. Press the [START] key.  
Copying is started.

Note: When this simulation is canceled, the display is shifted to the initial menu, but the machine is not reset.

Item	Content	Setting range	Default
1	OC	1-99	50
2	SPF(SIDE1)		
3	SPF(SIDE2)		

## SIMULATION 50-12

ORIGINAL OFF-CENTER ADJUSTMENT. INPUT VALUE 1-99, AND PRESS START.

1: OC	50	50	
2: SPF(SIDE1)	50	1/1	
3: SPF(SIDE2)	50	↑	
		↓	
		OK	

<b>Purpose</b>	Adjustment	
<b>Function (Purpose)</b>	Used to adjust the OPC drum separation pawl ON time.	
<b>Section</b>	Image process (Photoconductor/Developing/Transfer/Cleaning)	
<b>Item</b>	Operation	

**Operation/procedure**

1. Touch the item to be adjusted.  
The item and the currently set value are highlighted.
2. Enter the adjustment value with the 10-key.

Item	Setting range	Default
1 600dpi	1-99	50
2 1200dpi		

## SIMULATION 51-1

D/F TIMING ADJUSTMENT. INPUT VALUE 1-99, AND PRESS START.

1: 600dpi	50	50	
2: 1200dpi	50	1/1	
		↑	
		↓	
		OK	

<b>Purpose</b>	Adjustment	
<b>Function (Purpose)</b>	Used to adjust the contact pressure of paper onto the resist roller in each section (copier paper feed section, duplex paper feed section, SPF/RSPF paper feed section). (When the print image position varies greatly for the paper or when a lot of paper jam troubles occur, the adjustment is required.)	
<b>Section</b>	Paper transport (Discharge/Switchback/Transport)	
<b>Item</b>	Operation	

**Operation/procedure**

1. Touch the item to be adjusted.  
The item and the currently set value are highlighted.
2. Press the [START] key.  
The display is shifted to the copy menu.
3. Select the paper feed tray and the print density.  
Enter the adjustment value with the 10-key.
4. Press the [START] key.  
Copying is started.

Note: When this simulation is canceled, the display is shifted to the initial menu, but the machine is not reset.

Item		Content	Setting range	Default
1	BYPASS	Manual feed	1-99	50
2	TRAY1	1st cassette	1-99	70
3	TRAY2	2nd cassette	1-99	50
4	TRAY3	3rd cassette	1-99	50
5	TRAY4	4th cassette	1-99	50
6	DUPLEX	Back print	1-99	70
7	SPF(SIDE1)	SPF front surface	1-99	50
8	SPF(SIDE2)	SPF back surface	1-99	50

**SIMULATION 51-2**  
RESIST TIMING ADJUSTMENT. INPUT VALUE 1-99, AND PRESS START.

1: BYPASS	50	2: TRAY1	70	50
3: TRAY2	50	4: TRAY3	50	1/1
5: TRAY4	50	6: DUPLEX	70	↑
7: SPF(SIDE1)	50	8: SPF(SIDE2)	50	↓

OK

51-8

Purpose	Setting
<b>Function (Purpose)</b>	Used to set the OPC drum separation pawl operation inhibit. (ON/OFF)
<b>Section</b>	Image process (Photoconductor/Developing/Transfer/Cleaning)
<b>Item</b>	Operation

#### Operation/procedure

Select the set value with the 10-key.

Item		Content	Setting range	Default
0	ON	Enable	0-1	0
1	OFF	Disable		

**SIMULATION 51-8**  
DETACH FINGER SETTING. SELECT 0-1, AND PRESS START.

0:ON 1

1:OFF

51-9

Purpose	Setting
<b>Function (Purpose)</b>	Used to adjust the OPC drum separation voltage ON/OFF timing.
<b>Section</b>	Process (OPC drum, developing, transfer, cleaning)
<b>Item</b>	Operation

#### Operation/Procedure

1. Touch the item to be adjusted.  
The item and the currently set value are highlighted.
2. Enter the set value with the 10-key.

Item	Content	Setting range	Default
1	SHV ON Separation voltage ON timing * Transfer V2ON reference (Synchronized with the adjustment value of 50.)	25-90	50
2	SHV OFF Separation voltage OFF timing * Transfer V2OFF reference (Synchronized with the adjustment value of 50.)	50-90	75

**SIMULATION 51-9**  
SHV SETTING. INPUT VALUE 25-90, AND PRESS START.

1: SHV ON 50

2: SHV OFF 50

1/1

↑

↓

OK

53

53-6

Purpose	Adjustment
<b>Function (Purpose)</b>	Used to adjust the detection level of the SPF/RSPF width. The adjustment method is the 4-point system. Set the guide to Max. (A3/WLetter) position, A4R/Letter R position, A5R/Invoice R position, and Min. position for adjustment.
<b>Section</b>	SPF/RSPF

#### Operation/Procedure

##### (Max. position setting)

1. Set the guide to the maximum position, and press the [START] key.  
Set WLetter and fit the guide, and press the [START] key.
2. Set A4R/Letter R and fit the guide, and press the [START] key.
3. Set A5R/Invoice R and fit the guide, and press the [START] key.
4. Set the guide to the minimum position, and press the [START] key.
5. Set the paper recognition width (+), and press the [START] key.
6. Set the paper recognition width (-), and press the [START] key.

If "FAILED" is displayed in the above procedure 1, 2, 3, or 4, repeat the adjustment.

##### (Middle position L/S setting)

If the middle position adjustment is not required, press the [START] key without changing the guide position.

Middle position adjustment L	YES	MID-L ADJ.ON
	NO	MID-L ADJ.OFF
Middle position adjustment S	YES	MID-S ADJ.ON
	NO	MID-S ADJ.OFF

AB series

Inch series

**SIMULATION 53-6**  
SPF TRAY ADJUSTMENT.  
A3 PAPER SET, AND  
PRESS START KEY.

**SIMULATION 53-6**  
SPF TRAY ADJUSTMENT.  
WLT PAPER SET, AND  
PRESS START KEY.

53-7

Purpose	Adjustment
<b>Function (Purpose)</b>	Used to enter the SPF/RSPF width detection adjustment value.
<b>Section</b>	SPF/RSPF

#### Operation/Procedure

1. Touch the item to be adjusted.  
The item and the currently set value are highlighted.
2. Enter the SPF/RSPF original tray size adjustment value (specified on the back of the SPF/RSPF) with the 10-key.

Item	Content	Setting range	Default
1	MAX POSITION	0 - 999	0
2	POSITION 1		
3	POSITION 2		
4	MIN POSITION		

#### SIMULATION 53-7

SPF TRAY ADJUSTMENT(MANUAL). INPUT VALUE 0-999, AND PRESS START.

1: MAX. POSITION 0  
 2: POSITION1 0  
 3: POSITION2 0  
 4: MIN. POSITION 0

0

1/1

↑

↓

OK

53-8

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	Used to adjust the SPF/RSPF scan position of the mirror unit automatically. For the SPF/RSPF scan position automatic adjustment, the mirror unit is shifted to 11mm before the SPF/RSPF glass cover edge, and is operated automatically to scan images by the unit of 1 step, detecting the position up to the glass cover automatically. (Adjustment value) Default: 50, Adjustment range: 1 - 99 Adjustment unit: 1 = about 0.12mm

#### Operation/Procedure

With the SPF/RSPF or the OC cover open, put a black background chart on the OC glass (the SPF/RSPF glass surface is included for the SPF/RSPF standard model), and press the [START] key.

If the adjustment is executed normally, the adjustment value is displayed and saved in the EEPROM. If an error occurs, "ERR" is displayed and the value is not saved in the EEPROM.

If the adjustment is not performed because of abnormality, "---" is displayed.

During execution of the adjustment, the operation cannot be interrupted.

#### SIMULATION 53-8

SPF SCANNING POSITION ADJUSTMENT(AUTO). PRESS START.

61

61-1

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the LSU (polygon motor) operation.
<b>Section</b>	LSU
<b>Item</b>	Operation

#### Operation/procedure

Press the [START] key, and the LSU test is performed.

Used to set the LSU to ON state and check that the sync signal (HSYNC/) is outputted or not.

After operation for 30 sec, the result is displayed. (Interruption cannot be made for 5 sec after starting the operation.)

#### SIMULATION 61-1

LSU TEST. PRESS START.

63

63-1

<b>Purpose</b>	Adjustment/setting/operation data output/check (display/print)
<b>Function (Purpose)</b>	Used to check the result of shading correction. (The shading correction data are displayed.)
<b>Section</b>	Scanner (Exposure)
<b>Item</b>	Operation

#### Operation/procedure

Pressing the [START] key performs shading, and displays the result (center pixel).

#### SIMULATION 63-1

SHADING DATA DISPLAY. PRESS START.

63-7

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	Used to adjust the SPF/RSPF white correction start pixel position automatically. This adjustment is performed after the lens unit is replaced.
<b>Section</b>	Scanner
<b>Item</b>	Operation

#### Operation/procedure

Set the SPF/RSPF unit OPEN, and press the [START] key.

[ ] indicates the order number of the pixel of the white sheet for SPF/RSPF exposure correction in the SPF/RSPF position.

If the adjustment is normally completed, "COMPLETE" is displayed and data are written into the EEPROM.

In case of an abnormality, "ERROR" is displayed and no data is written into the EEPROM.

The SPF/RSPF white correction start pixel = Displayed pixel position - 34

If the simulation is executed with the SPF/RSPF unit closed, an error is resulted.

#### SIMULATION 63-7

SHADING POSITION ADJUSTMENT. PRESS START.

64

64-1

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the operation of the printer function (auto print operation).
<b>Section</b>	Printer
<b>Item</b>	Operation

## Operation/procedure

1. Select the print item with the 10-key.
2. Press the [START] key.  
The display is shifted to the copy menu.
3. Select the paper feed tray and the print density.
4. Press the [START] key.  
Copying is started.

During execution of copying, the [CUSTOM SETTINGS] key and the [INTERRUPTION] key are invalid.

Item	Content	Setting range	Default
1	2 BY 4 MODE Self print is made in 2 by 4 mode (printing 2 lines and not printing 4 lines). Since scanning is not performed, when the original is set on the SPF/RSPF, this cannot be performed. * Duplex print cannot be made.	1-2	1
2	LATTICE PRINT Lattice print (1cm, 1dot width WLT, A3 print (A3 main scan, WLT sub scan)) is performed. * Duplex print can be made.		

\* If the IMC board is not installed, the key inputs cannot be made.

### SIMULATION 64-1

SELF PRINT MODE. SELECT 1-2, AND PRESS START.

- 1: 2 BY 4 MODE  
2: LATTICE PRINT

## 65

### 65-1

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	Used to adjust the touch panel (LCD display section) detection position.
<b>Section</b>	Operation (Display, Operation)

## Operation/Procedure

Press the keys displayed on the LCD sequentially.

Adjust the touch panel coordinates.

When the point of "+" on the LCD is pressed, it turns gray. Press all the four points of "+."

### SIMULATION 65-1

+ +  
+ +

### 65-2

<b>Purpose</b>	Adjustment/Setting/Operation data output check (Display, Print)
<b>Function (Purpose)</b>	Used to check the touch panel (LCD display section) detection position adjustment result.
<b>Section</b>	Operation (Display, Operation)

## Operation/Procedure

Check the touch panel coordinates.

Press the keys displayed on the LCD sequentially.

When the touch panel is pressed, the X-coordinate and the Y-coordinate (dot conversion values) are displayed.

### SIMULATION 65-2

100 200 300 400 500 600  
100 + + + + +  
140 + X: 800 + + +  
180 + Y: 200 + + +

### 65-5

<b>Purpose</b>	Adjustment/Setting/Operation data output check (Display, Print)
<b>Function (Purpose)</b>	Used to check the key inputs of the operation panel.
<b>Section</b>	Operation (screen/operation)

## Operation/procedure

Check the key input of the operation panel.

Press the keys displayed on the LCD sequentially.

After completion of all key entries, "COMPLETE" is displayed.

### SIMULATION 65-5

OPERATION PANEL KEY CHECK.  
COPY

## 66

### 66-1

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to change and check the FAX-related soft SW.
<b>Section</b>	FAX

## Operation/procedure

1. Enter the soft SW number to be selected with the 10-key.
2. Check and change the setting content of the selected soft SW.
3. Press the [START] key to save the set content.

The FAX-related soft SW is displayed on the LCD, and changing can be made by monitoring it.

Note: Executable only when the FAX is installed.

### SIMULATION 66-1

FAX SOFT SW. SETTING. SELECT 2~99, AND PRESS START.

1

### 66-2

<b>Purpose</b>	Adjustment
<b>Function (Purpose)</b>	Used to clear the FAX-related soft SW. (Except for the FAX adjustment values)
<b>Section</b>	FAX

## Operation/procedure

1. Enter the country code with the 10-key, and press the [START] key.
2. When "1: (YES)" is selected, the soft SW corresponding to the country code is cleared. When "2: (NO)" is selected, the simulation is canceled.

#### Country code

Japan : 00000000  
 U.S.A. : 10110101  
 Australia : 00001001  
 U.K : 10110100  
 France : 00111101  
 Germany : 00000100  
 Sweden : 10100101  
 New Zealand : 01111110  
 China : 00100110  
 Singapore : 10011100  
 TW : 11111110  
 Other 1 : 11111101  
 Other 2 : 11111100  
 Other 3 : 11111011

The codes other than the above are accepted as Japan.

Note: Executable only when the FAX is installed.

#### SIMULATION 66-2

FAX SOFT SW. CLEAR (WITHOUT ADJUSTMENT VALUE).

INPUT COUNTRY CODE No (1-8), AND PRESS START. 1 2 3 4 5 6 7 8

00001001

#### 66-3

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	FAX PWB memory check
<b>Section</b>	FAX
<b>Item</b>	Operation

#### Operation/procedure

Press the [START] key.

Read/write can be checked for FAX PWB memory.

The check result is displayed separately for each memory.

##### 1. Memory to be checked

DRAM		
SRAM		
Flash ROM	Program area	SUM check only
	Memory area	
Option memory		The memory size follows the automatically detected value.
PAGE		

##### 2. Detailed procedure

1	"55H" is written to all the addresses of each memory, and the address data are read in sequence to check that they were properly written.
2	"AAH" is written to all the addresses of each memory, and the address data are read in sequence to check that they were properly written.
3	"00H" is written to all the addresses of each memory, and the address data are read in sequence to check that they were properly written.
4	Perform checks 1 - 3 sequentially. If there is no abnormality, it is "OK." If there is any abnormality, "NG" is notified to the error address.
5	After completion of check, the memory is returned to the initial state. (CPU is not reset)

Interruption cannot be made during operation.

Note: Executable only when the FAX is installed.

#### SIMULATION 66-3

FAX PWB MEMORY CHECK. SELECT 1-5, AND PRESS START.

1. DRAM :  
 2. SRAM : NG:B0400000  
 3. FLASH :  
 4. OPTION :  
 5. PAGE :

1

#### 66-4

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Signal send mode (Signal send level: Max.)
<b>Section</b>	FAX
<b>Item</b>	Operation

#### Operation/procedure

Select the signal number with the 10-key, and press the [START] key. The signal is sent to the line and the machine speaker. (Sending the signal is continued until the [CUSTOM SETTINGS] key is pressed.)

By entering the signal number and pressing the [START] key during execution, the signal kind can be changed.

Item	Send signal	Send level Selection menu
1 NO SIGNAL	Signal not sent	None
2 33.6 V34	—	—
3 31.2 V34	—	—
4 28.8 V34	—	—
5 26.4 V34	—	—
6 24.0 V34	—	—
7 16.0 V34	—	—
8 19.2 V34	—	—
9 16.8 V34	—	—
10 14.4 V34	—	—
11 12.0 V34	—	—
12 9.6 V34	—	—
13 7.2 V34	—	—
14 4.8 V34	—	—
15 2.4 V34	—	—
16 14.4 V33	—	—
17 12.0 V33	—	—
18 14.4 V17	—	—
19 12.0 V17	—	—
20 9.6 V17	—	—
21 7.2 V17	—	—
22 9.6 V29	—	—
23 7.2 V29	—	—
24 4.8 V27t	—	—
25 2.4 V27t	—	—
26 0.3 FLG	7EH Flag signal	Yes
27 CED2100	Tone signal	Yes
28 CNG1100		
29 0.3 V21		
30 ANSam		
31 RINGER	Pseudo-ringer sound ([ON HOOK] key ON)	None
32 No MSG	Voice message (no sound) Under the state where the ring back tone can be sent to the line, keep the sound composition IC volume to 0.	None
33 No RBT	Ring back tone (no sound) Under the state where the ring back tone can be sent to the line, keep the G/A volume to 0.	None



Item	Send signal	Send level Selection menu
34	Dial pulse (make)	1: 0dB 2: Soft SW
	Maintain the make state with keeping the condition to be able to send to the dial pulse line.	
35	Dial pulse (break)	1: 0dB 2: Soft SW
	Maintain the break state with keeping the condition to be able to send to the dial pulse line.	

Note: Executable only when the FAX is installed.

SIMULATION 66-4			
SIGNAL OUTPUT CHECK (LEVEL MAX). SELECT 1-35, AND PRESS START.			
1. NO SIGNAL	2. 33.6 V34	3. 31.2 V34	4. 28.8 V34
5. 26.4 V34	6. 24.0 V34	7. 21.6 V34	8. 19.2 V34
9. 16.8 V34	10. 14.4 V34	11. 12.0 V34	12. 9.6 V34
13. 7.2 V34	14. 4.8 V34	15. 2.4 V34	16. 14.4 V33
17. 12.0 V33	18. 14.4 V17	19. 12.0 V17	20. 9.6 V17
21. 7.2 V17	22. 9.6 V29	23. 7.2 V29	24. 4.8 V27t
25. 2.4V27t	26. 0.3 FLG	27. CED 2100	28. CNG 1100
29. 0.3 V21	30. ANSam	31. RINGER	32. No RBT
33. No RBT	34. DP MAKE	35. DP BRK	

1

66-5

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Signal send mode (Signal send level soft SW setting)
<b>Section</b>	FAX
<b>Item</b>	Operation

#### Operation/procedure

Select the signal number with the 10-key, and press the [START] key.

By setting the signal number, signals are sent to the line and the machine speaker. (Sending signals is continued until interruption command is made (by pressing [CUSTOM SETTINGS] key).)

By entering the signal number and pressing the [START] key during execution, the signal kind can be changed.

Signal number	Send signal	Send level Selection menu
1	NO SIGNAL	Signal not sent
2	33.6 V34	33.6 V34
3	31.2 V34	31.2 V34
4	28.8 V34	28.8 V34
5	26.4 V34	26.4 V34
6	24.0 V34	24.0 V34
7	16.0 V34	16.0 V34
8	19.2 V34	19.2 V34
9	16.8 V34	16.8 V34
10	14.4 V34	14.4 V34
11	12.0 V34	12.0 V34
12	9.6 V34	9.6 V34
13	7.2 V34	7.2 V34
14	4.8 V34	4.8 V34
15	2.4 V34	2.4 V34
16	14.4 V33	14.4 V33
17	12.0 V33	12.0 V33
18	14.4 V17	14.4 V17
19	12.0 V17	12.0 V17
20	9.6 V17	9.6 V17
21	7.2 V17	7.2 V17
22	9.6 V29	9.6 V29
23	7.2 V29	7.2 V29
24	4.8 V27t	4.8 V27t
25	2.4 V27t	2.4 V27t
26	0.3 FLG	7EH Flag signal
		Yes

Signal number		Send signal	Send level Selection menu
27	CED2100	Tone signal	Yes
28	CNG1100		
29	0.3 V21		
30	ANSam		
31	RINGER	Pseudo-ringer sound ([ON HOOK] key ON)	None
32	No MSG	Voice message (no sound)	None
		Under the state where the ring back tone can be sent to the line, keep the sound composition IC volume to 0.	
33	No RBT	Ring back tone (no sound)	None
		Under the state where the ring back tone can be sent to the line, keep the G/A volume to 0.	
34	DP MAKE	Dial pulse (make)	1: 0dB 2: Soft SW
		Maintain the make state with keeping the condition to be able to send to the dial pulse line.	
35	DP BRK	Dial pulse (break)	1: 0dB 2: Soft SW
		Maintain the break state with keeping the condition to be able to send to the dial pulse line.	

Note: Executable only when the FAX is installed.

SIMULATION 66-5			
SIGNAL OUTPUT CHECK (SOFT SW.). SELECT 1-35, AND PRESS START.			
1. NO SIGNAL	2. 33.6 V34	3. 31.2 V34	4. 28.8 V34
5. 26.4 V34	6. 24.0 V34	7. 21.6 V34	8. 19.2 V34
9. 16.8 V34	10. 14.4 V34	11. 12.0 V34	12. 9.6 V34
13. 7.2 V34	14. 4.8 V34	15. 2.4 V34	16. 14.4 V33
17. 12.0 V33	18. 14.4 V17	19. 12.0 V17	20. 9.6 V17
21. 7.2 V17	22. 9.6 V29	23. 7.2 V29	24. 4.8 V27t
25. 2.4V27t	26. 0.3 FLG	27. CED 2100	28. CNG 1100
29. 0.3 V21	30. ANSam	31. RINGER	32. No RBT
33. No RBT	34. DP MAKE	35. DP BRK	

1

66-6

<b>Purpose</b>	Data output, check	
<b>Function (Purpose)</b>	Printing the confidential password	
<b>Section</b>	FAX	
<b>Item</b>	Data	Confidential/Pass code

#### Operation/procedure

Press the [START] key.

The confidential ID table (confidential BOX numbers, confidential BOX names, and confidential password) is printed.

The confidential data of My company mode is printed separately.

Note: Executable only when the FAX is installed.

SIMULATION 66-6	
PASS CODE PRINT OUT. PRESS START.	
1. PRINT	

1

66-7

<b>Purpose</b>	Data output, check	
<b>Function (Purpose)</b>	Print the screen memory contents	
<b>Section</b>	FAX	
<b>Item</b>	Data	Image data

#### Operation/procedure

Press the [START] key.

Used to input all image data (including confidential reception data, remote send image, not-sent image) stored in image memory of the FAX section.

The output image is remained even after outputting.

Note: Executable only when the FAX is installed.

SIMULATION 66-7

IMAGE MEMORY PRINT OUT. PRESS START.  
1. PRINT

1

66-8

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Voice Message send (Signal send level: Max.) (Japan only)
<b>Section</b>	FAX
<b>Item</b>	Operation

**Operation/procedure**

Select the message number with the 10-key, and press the [START] key.

By setting the message No., the sound message is sent to the line and the speaker of the body. (The message is repeated until the interruption command is provided by pressing the [CUSTOM SETTINGS] key.)

By pressing the [START] key during execution, the signal kind can be changed.

Item		Voice message
1	NONE	Silent
2	FAX/TEL MSG1	"Hold the line a minute, please send fax." (TEL/FAX voice response)
3	FAX/TEL MSG2	"Hold the line a minute." (TEL/FAX voice response)
4	FAX/TEL MSG3	"Not around here, please send fax." (TEL/FAX voice response)
5	CHANGED RX MSG	"Ding Dong" (Sound delivered when switching to remote reception)
6	RINGER	Call sound
7	EXT.TEL RINGER	External telephone call

Message No. 5 can be heard by an external telephone speaker.

Note: Executable only when the FAX is installed.

SIMULATION 66-8

MESSAGE OUTPUT CHECK (LEVEL MAX). SELECT1-7, AND PRESS START.  
1. NONE  
2. FAX/TEL MSG1  
3. FAX/TEL MSG2  
4. FAX/TEL MSG3  
5. CHNGED RX MSG  
6. RINGER  
7. EXT. TELRINGER

2

66-9

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to send the voice message. (Signal send level: Set by soft SW.) (Japan only)
<b>Section</b>	FAX
<b>Item</b>	Operation

**Operation/procedure**

Select the message number with the 10-key, and press the [START] key.

By setting the message No., the sound message is sent to the line and the speaker of the body. (The message is repeated until the interruption command is provided by pressing the [CUSTOM SETTINGS] key.)

By pressing the [START] key during execution, the signal kind can be changed.

Item		Voice message
1	NONE	Silent
2	FAX/TEL MSG1	"Hold the line a minute, please send fax." (TEL/FAX voice response)
3	FAX/TEL MSG2	"Hold the line a minute." (TEL/FAX voice response)
4	FAX/TEL MSG3	"Not around here, please send fax." (TEL/FAX voice response)
5	CHANGED RX MSG	"Ding Dong" (Sound delivered when switching to remote reception)
6	RINGER	Call sound
7	EXT.TEL RINGER	External telephone call

Message No. 5 can be heard by an external telephone speaker.

Note: Executable only when the FAX is installed.

SIMULATION 66-9

MESSAGE OUTPUT CHECK (SOFT SW.). SELECT1-7, AND PRESS START.  
1. NONE  
2. FAX/TEL MSG  
3. FAX/TEL MSG  
4. FAX/TEL MSG  
5. CHNGED RX MSG  
6. RINGER  
7. EXT. TELRINGER

2

66-10

<b>Purpose</b>	Adjustment/Setting/Check	
<b>Function (Purpose)</b>	Image data memory clear	
<b>Section</b>	FAX	
<b>Item</b>	Data	Image data

**Operation/procedure**

Select "1: YES" with the 10-key and press the [START] key. (When "2: NO" is selected, the simulation is canceled.)

Used to clear all image data (including confidential reception data) stored in image memory of the FAX section.

The management table is also cleared (initialized) at the same time.

\* If there is any print data, the power must be turned off after clearing.

Note: Executable only when the FAX is installed.

SIMULATION 66-10

IMAGE MEMORY CLEAR. ARE YOU SURE?  
1. YES  
2. NO

1

66-11

<b>Purpose</b>	Operation test/check	
<b>Function (Purpose)</b>	Used to send 300bps signals. (Signal send level: Max.)	
<b>Section</b>	FAX	
<b>Item</b>	Operation	

**Operation/procedure**

Select the signal number with the 10-key, and press the [START] key.

By setting the signal number, the specified signal is delivered to the line at the speed of 300bps. (The signal is continuously sent until the interruption command is provided by pressing the [CUSTOM SETTINGS] key.)

The signal send level can be selected from 0dB or the soft SW set value.

The signal send level is returned to the soft SW set value before execution of the mode after completion of the mode.

By entering the number and pressing the [START] key during execution, the signal kind can be changed.

Item	
1	NO SIGNAL
2	11111
3	11110
4	00000
5	010101
6	00001

Note: Executable only when the FAX is installed.

SIMULATION 66-11  
300bps SIGNAL OUTPUT (LEVEL MAX). SELECT 1-6, AND PRESS START.  
1. NO SIGNAL  
2. 11111  
3. 11110  
4. 00000  
5. 010101  
6. 00001

66-12

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to send 300bps signals. (Signal send level: Set by soft SW)
<b>Section</b>	FAX
<b>Item</b>	Operation

#### Operation/procedure

Select the signal number with the 10-key, and press the [START] key. By setting the signal number, the specified signal is delivered to the line at the speed of 300bps. (The signal is continuously sent until the interruption command is provided by pressing the [CUSTOM SETTINGS] key.)

The signal send level can be selected from 0dB or the soft SW set value.

The signal send level is returned to the soft SW set value before execution of the mode after completion of the mode.

By entering the number and pressing the [START] key during execution, the signal kind can be changed.

Item	
1	NO SIGNAL
2	11111
3	11110
4	00000
5	010101
6	00001

Note: Executable only when the FAX is installed.

SIMULATION 66-12  
300bps SIGNAL OUTPUT (SOFT SW.). SELECT 1-6, AND PRESS START.  
1. NO SIGNAL  
2. 11111  
3. 11110  
4. 00000  
5. 010101  
6. 00001

66-13

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to register the dial numbers.
<b>Section</b>	FAX
<b>Item</b>	Operation

#### Operation/procedure

Enter the number with the 10-key, [\*] key, and [#] key.

Press the [CLEAR] key to return to the initial state.

Press the [START] key to register the entered number.

Note: Executable only when the FAX is installed.

SIMULATION 66-13  
DIAL TEST NUMBER SETTING. INPUT NUMBER AND PRESS START.  
0-9 : [0-9], \*:[\*], #:[#]  
0123456789\*#01234567

66-14

<b>Purpose</b>	Operation check/test
<b>Function (Purpose)</b>	Used to perform the dial test. (10 PPS send test)
<b>Section</b>	FAX
<b>Item</b>	Operation

#### Operation/Procedure

1. Select the item with the 10-key, and press the [START] key.

2. Set the make time with the 10-key.

The dial is sent with the set value + 26ms.

The sending dial cannot be interrupted.

Item	Content	Setting range
0 EXECUTE	Execution	—
1 MAKE TIME	Dial pulse make time setting	0-15

Note: Executable only when the FAX is installed.

SIMULATION 66-14  
DIAL TEST (10PPS). SELECT 0-1, AND PRESS START.  
0. EXECUTE  
1. MAKE TIME : 7 [+26ms]

66-15

<b>Purpose</b>	Operation check/test
<b>Function (Purpose)</b>	Used to perform the dial test. (20 PPS send test)
<b>Section</b>	FAX
<b>Item</b>	Operation

#### Operation/Procedure

1. Select the item with the 10-key, and press the [START] key.

2. Set the make time with the 10-key.

The dial is sent with the set value + 26ms.

The sending dial cannot be interrupted.

Item	Content	Setting range
0 EXECUTE	Execution	—
1 MAKE TIME	Dial pulse make time setting	0-15

Note: Executable only when the FAX is installed.

SIMULATION 66-15  
DIAL TEST (20PPS). SELECT 0-1, AND PRESS START.  
0. EXECUTE  
1. MAKE TIME : 7 [+ 9ms]

66-16

<b>Purpose</b>	Operation check/test
<b>Function (Purpose)</b>	Used to perform the dial test. (DTFM signal send test)
<b>Section</b>	FAX
<b>Item</b>	Operation

#### Operation/Procedure

1. Select the item with the 10-key, and press the [START] key.

2. Enter the set value with the 10-key.

The sending dial cannot be interrupted.

Item	Content	Setting range
0 EXECUTE	Execution	—
1 HIGH (SW)	High group	0-15
2 HIGH-LOW (SW)	High group, Low group	0-15

3. Select the soft SW reflection.

Item	Content
1 NO STORE TO SW	Not reflected.
2 STORE TO SW	Reflected. (Shift SW value changed.)

Note: Executable only when the FAX is installed.

#### SIMULATION 66-16

DIAL TEST (DTMF). SELECT 0-2, AND PRESS START.  
0. EXECUTE  
1. HIGH (SW) : 7  
2. HIGH-LOW (SW) : 7

1

#### 66-17

<b>Purpose</b>	Operation check/test
<b>Function (Purpose)</b>	Used to check the DTFM signal send operation. (Signal send level: Max.)
<b>Section</b>	FAX
<b>Item</b>	Operation

#### Operation/procedure

Enter the DTFM signal (1 digit (1 to 9, 0, \*, #)) and press the [START] key.

When the [CUSTOM SETTINGS] key is pressed during execution, the simulation is terminated.

Note: Executable only when the FAX is installed.

#### SIMULATION 66-17

DTMF SIGNAL OUTPUT (LEVEL MAX). INPUT 0-9, \*, #, AND PRESS START.

#### 66-18

<b>Purpose</b>	Operation check/test
<b>Function (Purpose)</b>	Used to check the DTFM signal send operation. (Signal send level: Set by soft SW.)
<b>Section</b>	FAX
<b>Item</b>	Operation

#### Operation/Procedure

Enter the DTFM signal (1 digit (1 to 9, 0, \*, #)) and press the [START] key.

When the [CUSTOM SETTINGS] key is pressed during execution, the simulation is terminated.

Note: Executable only when the FAX is installed.

#### SIMULATION 66-18

DTMF SIGNAL OUTPUT (SOFT SW.). INPUT 0-9, \*, #, AND PRESS START.

#### 66-19

<b>Purpose</b>	Back up
<b>Function (Purpose)</b>	Used to write the SRAM data to the Flash ROM.
<b>Section</b>	FAX
<b>Item</b>	Data

#### Operation/Procedure

Select "1: YES" with the 10-key, and press the [START] key. The data are backed up. (When "2: NO" is selected, the simulation is canceled.)

\* The AR-FX5 data cannot be written into the AR-FX7. If it is executed, data are initialized and deleted. In addition, the AR-FX7 data cannot be used in the AR-FX5.

Note: Executable only when the FAX is installed.

#### SIMULATION 66-19

SRAM BACK UP. (WRITE TO FLASH ROM) ARE YOU SURE ?  
1. YES  
2. NO

#### 66-20

<b>Purpose</b>	Back up
<b>Function (Purpose)</b>	Used to write the Flash ROM data to the SRAM.
<b>Section</b>	FAX
<b>Item</b>	Data

#### Operation/Procedure

Select "1: YES" with the 10-key, and press the [START] key. The Flash ROM data are read out and written into the SRAM. (When "2: NO" is selected, the simulation is canceled.)

\* The AR-FX5 data cannot be written into the AR-FX7. If it is executed, data are initialized and deleted. In addition, the AR-FX7 data cannot be used in the AR-FX5.

Note: Executable only when the FAX is installed.

#### SIMULATION 66-20

SRAM BACK UP. (READ FROM FLASH ROM) ARE YOU SURE ?  
1. YES  
2. NO

1

#### 66-21

<b>Purpose</b>	Check
<b>Function (Purpose)</b>	FAX information print
<b>Section</b>	FAX
<b>Item</b>	Data

#### Operation/procedure

1. Select the item to be printed.
2. Press the [START] key.

The information of the selected item is printed.

Item	Content
1 USER SW.LIST	User setting list
2 SOFT SW.LIST	Soft SW list
3 SYSTEM ERROR	System error list Used to print the system error log (error number and time).
4 PROTOCOL	Protocol error list Regardless of soft SW38-1 status, the protocol monitor of the preceding communication is printed. (Printing is allowed at any time before starting the next communication.) For this operation, the protocol monitor of one communication is always buffered.

Note: Executable only when the FAX is installed.

#### SIMULATION 66-21

FAX INFORMATION PRINT OUT. SELECT 1-4, AND PRESS START.  
1. USER SW. LIST  
2. SOFT SW. LIST  
3. SYSTEM ERROR  
4. PROTOCOL

0

#### 66-22

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Handset sound volume adjustment (Japan only)
<b>Section</b>	FAX
<b>Item</b>	Operation

#### Operation/procedure

1. Select the set volume. (Max., Middle, Min.)
2. Press the [START] key.

Switch of 1, 2, and 3 can be made during execution of the simulation. During execution of the simulation, sounds are generated.

Note: Executable only when the FAX is installed.

SIMULATION 66-22  
HANDSET VOLUME SETTING. SELECT 1-3, AND PRESS START.  
1. MAX  
2. MIDDLE  
3. MIN

2

66-24

<b>Purpose</b>	Data clear	
<b>Function (Purpose)</b>	Used to clear the FAST storage data. (SEC only)	
<b>Section</b>	FAX	
<b>Item</b>	Data	Initializing

#### Operation/procedure

Select "1: YES" with the 10-key and press the [START] key. The FAST storage data are cleared. (When "2: NO" is selected, the simulation is canceled.)

Note: Executable only when the FAX is installed.

SIMULATION 66-24  
FAST MEMORY DATA CLEAR. ARE YOU SURE?  
1. YES  
2. NO

66-30

<b>Purpose</b>	Operation test/check	
<b>Function (Purpose)</b>	Used to set the TEL/LIU.	
<b>Section</b>	FAX	
<b>Item</b>	Operation	

#### Operation/procedure

When the relay state of the polarity reverse relay, the handset hook switch, or the external telephone hook switch is changed, the content of change is displayed regardless of the soft SW setup (real time). The display of change is kept until an interruption command is supplied by pressing the [CUSTOM SETTINGS] key.

Item	Notification contents	
	Signal low	Signal high
HS2	ON	OFF
HS1	ON	OFF
RHS	ON	OFF
EXHS	ON	OFF

Note: Executable only when the FAX is installed.

SIMULATION 66-30  
TEL/LIU SENSOR CHECK.  
HS2 :\*\*\* HS1 :\*\*\* RHS :\*\*\* EXHS :\*\*\*

66-31

<b>Purpose</b>	Setting	
<b>Function (Purpose)</b>	Used to set the TEL/LIU.	
<b>Section</b>	FAX	
<b>Item</b>	Operation	

#### Operation/Procedure

1. Enter the set value. (Valid only 0 to 8)
2. The entered bit is alternatively switched between "0" and "1" and the target signal name is highlighted.
3. Press the [START] key to send the signal.

When the [CUSTUM SETTINGS] key is pressed, the output is terminated.

Note: Executable only when the FAX is installed.

SIMULATION 66-31  
TEL/LIU SETTING. INPUT 1-5. AND PRESS START.

1 2 3 4 5  
00001

1. C10N  
2. 150VON  
3. EC  
4. S.  
5. MSR.

66-32

<b>Purpose</b>	Operation test/check	
<b>Function (Purpose)</b>	Receive data check	
<b>Section</b>	FAX	
<b>Item</b>	Operation	

#### Operation/procedure

The fixed data received from the line are checked and the result is displayed.

When data are coincident, "OK" is displayed. When not, "NG" is displayed.

Note: Executable only when the FAX is installed.

SIMULATION 66-32  
RECEIVED DATA CHECK. CHECKING... (OK or NG)

66-33

<b>Purpose</b>	Operation test/check	
<b>Function (Purpose)</b>	Signal detection check	
<b>Section</b>	FAX	
<b>Item</b>	Operation	

#### Operation/Procedure

Signal detection is checked and the result is displayed.

Note: Executable only when the FAX is installed.

SIMULATION 66-33  
SIGNAL DETECT CHECK. SELECT 1-2, AND PRESS START  
1. CI, FNET  
2. CEG, CED, BT, DT, Flag, SDT, DTMF

1

66-34

<b>Purpose</b>	Operation test/check	
<b>Function (Purpose)</b>	Communication time measurement display	
<b>Section</b>	FAX	
<b>Item</b>	Operation	

#### Operation/procedure

The send/receive test is performed, and the time required for send/receive of the image data in the test is measured and displayed.

Measuring range	Send	From flag reception before sending of image data until sending of RCP frame
	Receive	From flag reception before reception of image data until reception of RCP frame

Mode when measuring	Used to make communication not in a simulation process but in the normal screen and measure the time.
How to check the time	Enter the simulation for communication time check and check the time.
Measuring unit	msec

When there are two or more send/receive operations of image data in one communication, only the time of the last send/receive data near the end is measured.

Note: Executable only when the FAX is installed.

SIMULATION 66-34  
COMMUNICATION TIME DISPLAY.  
\*\*:\*:\*:\*\*ms

66-37

<b>Purpose</b>	Adjustment/Setting/Check
<b>Function (Purpose)</b>	Speaker sound volume adjustment
<b>Section</b>	FAX

#### Operation/procedure

The following test sound is delivered to the line and the speaker to adjust the sound kind and volume.

The send level to the line is the set value of soft SW.

The set values of the selected sound kind and volume are written to each soft SW.

##### 1. Sound kinds pattern

Sound kinds (Test sound)		Sound volume set value			
RINGER	Call sound	DEF.	LAR.	MED.	SMA.
LINE MONITO	Line monitor sound (Test sound: communication signal sound)	DEF.	LAR.	MED.	SMA.
ON HOOK	On-hook (Test sound, communication signal sound)	DEF.	LAR.	MED.	SMA.
SCAN FINISH	Scan finish sound	DEF.	LAR.	MED.	SMA.
TX/RX FINISH	Communication finish sound	DEF.	LAR.	MED.	SMA.
DTMF	DTFM send sound	DEF.	LAR.	MED.	SMA.

LAR: (MED. Value + 1)

MED: (SMA value +1) - (LAR value - 1)

SMA: 1 - (MED. Value + 1)

##### 2. Sound volume pattern

Note: Executable only when the FAX is installed.

SIMULATION 66-37  
SPEAKER VOLUME SETTING. SELECT 1-16, AND PRESS START.  
RINGER 1. DEF. : ■ 2. LAR. : ■ 3. MED. : ■ 4. SMA. : ■  
LINE MONITOR 5. DEF. : ■ 6. LAR. : ■ 7. MED. : ■ 8. SMA. : ■  
ON HOOK 9. DEF. : ■ 10. LAR. : ■ 11. MED. : ■ 12. SMA. : ■  
SCAN FINISH 13. DEF. : ■ 14. LAR. : ■ 15. MED. : ■ 16. SMA. : ■  
TX/RX FINISH 17. DEF. : ■ 18. LAR. : ■ 19. MED. : ■ 20. SMA. : ■  
DTMF 21. DEF. : ■ 22. LAR. : ■ 23. MED. : ■ 24. SMA. : ■

66-41

<b>Purpose</b>	Adjustment/Setting/Check
<b>Function (Purpose)</b>	CI signal check

#### Operation/procedure

When the [START] key is pressed, the call signal from CI pin is detected to deliver the call sound to the line and the speaker. The volume of call sound follows the soft SW.

Signal detection and delivery of pseudo-call sound at detection are executed until the interruption command is provided by pressing the [CUSTOM SETTINGS] key.

Note: Executable only when the FAX is installed.

SIMULATION 66-41  
CI SIGNAL DETECT CHECK. PRESS START

67

67-1

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to execute read/write check of the RAM on the PCL board, and to display the result. (To be supported for MCU v00.45 or later)
<b>Section</b>	Printer
<b>Item</b>	Operation

#### Operation/Procedure

Press the [START] key.

Read/write check of the RAM on the PCL board is performed and the result is displayed.

The presence of DIMM is detected. If there is no DIMM, "---" is displayed. If there is, read/write check is performed and the result is displayed.

The display of "---" is changed to "CHECKING," "OK," or "NG" according to the message number included in the continuation command.

When the simulation is completed normally, "COMPLETE" is displayed. (No display for abnormal completion.)

Since only the devices installed to the PCL board are checked when the simulation is started, the display may not be changed from "---." (No message is sent for an uninstalled device.)

#### Key operations on each display

(Initial display)

Pressing the [INTERRUPT] key shifts the display to the previous menu. Pressing the [CA] key leads to resetting. Pressing the [C] key, and the [CUSTOM SETTINGS] key is invalid. (Beep sound)

(Display during execution)

During execution, the [INTERRUPT] key, [C] key, and the [CA] key are invalid. (Beep sound). The [CUSTOM SETTINGS] key produces a valid sound only.

(Check end display)

After execution, the [INTERRUPT] key and the [C] key are invalid. (Beep sound). Pressing the [CA] key leads to resetting. The [CUSTOM SETTINGS] key produces a valid sound only.

After completion of the simulation, reset the machine.

SIMULATION 67-1  
RAM CHECK. PRESS START.  
ON BOARD : ---  
DIMM : ---

67-11

<b>Purpose</b>	Setting
<b>Function (Purpose)</b>	Used to set the select-in signal of the Centro port.
<b>Section</b>	Printer
<b>Item</b>	Operation

#### Operation/procedure

Enter the set value with the 10-key, and press the [START] key.

Setting range	0-1
Default	0

\* Execution of the simulation which performs communication with the PCL board is inhibited until Notice Page storage is completed. (Only when the serviceman call error occurs.)



\* In the other case than the serviceman call error, entering the simulation is inhibited during the system check operation is displayed.

Note: Executable only when the PCL is installed.

**SIMULATION 67-11**  
CENTRO SELECT IN SIGNAL SETTING. SELECT 0-1, AND  
PRESS START.  
0:ON  
1:OFF

67-14

<b>Purpose</b>	Flash ROM version up
<b>Function (Purpose)</b>	Used to check write/comparison of flash programs.
<b>Section</b>	Printer
<b>Item</b>	Operation

#### Operation/procedure

- Press the [START] key.  
"PLEASE SEND DATA" is displayed.
- Data are sent from the PC (MS-DOS) by use of "fcopy" command (FCOPY: file name). (Refer the "[7] FLASH ROM VERSION UP PROCEDURE")

Used to overwrite and check the flash device while displaying its process status.

After completion, the result is displayed.

- Press the [CA] key to cancel the simulation and reset.

(Flash Device)  
PROGRAM  
BOOTROM  
PS KANJI FONT  
ESC/P KANJI FONT  
OPTION FONT

(Processing state)  
RECEIVE  
ERASE  
WRITE  
VERIFY

\* Execution of the simulation which performs communication with the PCL board is inhibited until Notice Page storage is completed. (Only when the serviceman call error occurs.)

\* In the other case than the serviceman call error, entering the simulation is inhibited during the system check operation is displayed.

**SIMULATION 67-14**  
FLASH ROM PROGRAM WRITE CHECK/COMPARE CHECK.  
PRESS START.

67-15

<b>Purpose</b>	Operation test/check
<b>Function (Purpose)</b>	Used to check the validity of the ROM on the PCL board and the result is displayed. (To be supported for MCU v00.45 or later)
<b>Section</b>	Printer
<b>Item</b>	Operation

#### Operation/procedure

Press the [START] key.

Each ROM on the PCL board is checked and the result is displayed.

The display of "---" is changed to "CHECKING," "OK," or "NG" according to the message number included in the continuation command.

When the simulation is completed normally, "COMPLETE" is displayed. (No display for abnormal completion.)

Since only the devices installed to the PCL board are checked when the simulation is started, the display may not be changed from "---." (No message is sent for an uninstalled device.)

#### Key operations on each display

(Initial display)

Pressing the [INTERRUPT] key shifts the display to the previous menu. Pressing the [CA] key leads to resetting. The [C] key and the [CUSTOM SETTINGS] key are invalid. (Beep sound).

(Execution display)

During execution, the [INTERRUPT] key, the [C] key, and the [CA] key are invalid. (Beep sound). Pressing the [CUSTOM SETTINGS] key produces a valid sound only.

(Check end display)

After execution, the [INTERRUPT] key and the [C] key are invalid. (Beep sound). Pressing the [CA] key leads to resetting. Pressing the [CUSTOM SETTINGS] key produces a valid sound only.

After completion of the simulation, reset the machine.

**SIMULATION 67-15**  
ROM CHECK. PRESS START.  
BOOT ROM : ---  
MT FONT : ---  
PROGRAM : ---  
ESC/P KANJI : ---  
PS KANJI : ---  
OPTION : ---

67-17

<b>Purpose</b>	Data clear
<b>Function (Purpose)</b>	Used to clear the printer section setting. (NVRAM clear)

#### Operation/procedure

- Press the [START] key.  
The confirmation dialogue is displayed.
- Select "1: YES" with the 10-key and press the [START] key.  
1: YES (Cleared)  
2: NO (Not cleared) (Default)

If there is no abnormality after Clear operation, "COMPLETE" is displayed. If there is any abnormality, "ERROR" is displayed.

\* Execution of the simulation which performs communication with the PCL board is inhibited until Notice Page storage is completed. (Only when the serviceman call error occurs.)

\* In the other case than the serviceman call error, entering the simulation is inhibited during the system check operation is displayed.

Note: Executable only when the PCL is installed.

**SIMULATION 67-17**  
NVRAM CLEAR. PRESS START.

67-18

<b>Purpose</b>	Data clear
<b>Function (Purpose)</b>	Used to clear the data area for FLASH ROM Network Scanner Application.

#### Operation/procedure

- Press the [START] key.  
The confirmation dialogue is displayed.
- Select "1: YES" with the 10-key and press the [START] key.  
1: YES (Cleared)  
2: NO (Not cleared) (Default)

If there is no abnormality after Clear operation, "COMPLETE" is displayed. If there is any abnormality, "ERROR" is displayed.

\* Execution of the simulation which performs communication with the PCL board is inhibited until Notice Page storage is completed. (Only when the serviceman call error occurs.)

\* In the other case than the serviceman call error, entering the simulation is inhibited during the system check operation is displayed.

Note: Executable only when the PCL is installed.

SIMULATION 67-18

FLASH ROM NETWORK SCANNER APPLICATION DATA  
CLEAR. PRESS START.

67-20

<b>Function (Purpose)</b>	Used to check the network connection when the scanner option is installed.
-------------------------------	--

**Operation/procedure**

The network scanner is checked.

1. Press the [START] key.  
"PLEASE SEND DATA" and "READY" are displayed. (When the PCL board is installed, it takes some time to display "READY.")
2. Boot "ftp" from MS-DOS.  
Data are sent from the PC by the put file name.

The process is displayed. Check the display.

(TEST DATA) TEST DATA  (Process status) RECEIVE TESTING
--

After completion, the result is displayed.

When the simulation is completed normally, "COMPLETE" is displayed. (No display for abnormal completion.)

Pressing [CA] key cancels the simulation resets the operation.

- \* Execution of the simulation which performs communication with the PCL board is inhibited until Notice Page storage is completed. (Only when the serviceman call error occurs.)
- \* In the other case than the serviceman call error, entering the simulation is inhibited during the system check operation is displayed.

Note: Executable only when PCL and NIC are installed.

SIMULATION 67-20

NETWORK SCANNER TEST. PRESS START.



## [9] TROUBLE CODE LIST

### 1. List

Trouble code		Trouble contents	Trouble detection
Main code	Sub code		
A0	01	Security incompatibility error	
E1	00	IMC board communication trouble	MCU
	10	IMC board trouble	
	11	IMC ASIC error	
	12	IMC CODEC error	
	13	IMC board flash ROM error	
	14	IMC board expanded memory module (DIMM) error	
	15	IMC board Page Memory error/SRAM error	
	16	IMC board image compression store memory error	
	17	IMC board smoothing IC error	
	80	IMC PWB communication trouble (protocol)	
	81	IMC PWB communication trouble (Parity)	
	82	IMC PWB communication trouble (Overrun)	
	84	IMC PWB communication trouble (Framing)	
	88	IMC PWB communication trouble (Timeout)	
E7	02	LSU trouble	
	10	Shading trouble (black correction)	
	11	Shading trouble (white correction)	
	12	Shading trouble	
F1	00	Finisher communication trouble	FIN
	01	Finisher jogger shift trouble	
	06	Finisher shift motor abnormality	
	08	Finisher staple shift motor trouble	
	11	Pusher motor trouble	
	15	Finisher elevator motor trouble	
F2	02	Toner supply failure	
	04	Identification error	
		Model error	
		Type error	
		Destination error	
		Data abnormality	
		Misc error	
F5	02	Copy lamp lighting abnormality	
F6	00	MCU-FAX communication trouble	MCU
	10	FAX control PWB trouble	
	80	FAX control PWB communication trouble (Protocol)	
	81	FAX control PWB communication trouble (Parity)	
	82	FAX control PWB communication trouble (Over-run)	
	84	FAX control PWB communication trouble (Framing)	
	88	FAX control PWB communication trouble (Timeout)	
	99	FAX control PWB destination error	

Trouble code		Trouble contents	Trouble detection
Main code	Sub code		
F9	00	MCU-PRT communication trouble	MCU
	10	Printer PWB trouble	
	80	Printer PWB communication trouble (Protocol)	
	81	Printer PWB communication trouble (Parity)	
	82	Printer PWB communication trouble (Overrun)	
	84	Printer PWB communication trouble (Framing)	
	88	Printer PWB communication trouble (Timeout)	
	99	Machine-PCL board language error	
H2	00	Main heater lamp thermistor open hard detection	
	01	Sub heater lamp thermistor open hard detection	
H3	00	Main heater lamp abnormally high temperature hard detection trouble	
	01	Sub heater lamp abnormally high temperature hard detection trouble	
	10	Main heater lamp abnormally high temperature soft detection trouble	
	11	Sub heater lamp abnormally high temperature soft detection trouble	
H4	00	Main heater lamp abnormally low temperature detection	
	01	Sub heater lamp abnormally low temperature detection	
	20	Main heater lamp abnormally low temperature detection	
	21	Sub heater lamp abnormally low temperature detection	
H5	01	10 continuous POD1, POD2 or PPD2 JAM	
L1	00	Scanner feed trouble	
L3	00	Scanner return trouble	
L4	01	Main motor trouble	
	11	Shifter motor trouble	
L6	10	Polygon motor trouble	
L8	10	Power abnormality detection trouble	
U1	01	FAX battery error	
	02	PANEL LOW battery error	
U2	04	EEPROM communication error	
	20	Machine speed code data error	
	40	CRUM chip communication error	
U7	00	RIC communication trouble	
U9	00	MCU-OPE communication trouble	OPE
	80	Operation control PWB communication trouble (Protocol)	
	81	Operation control PWB communication trouble (Parity)	
	82	Operation control PWB communication trouble (Overrun)	
	84	Operation control PWB communication trouble (Framing)	
	88	Operation control PWB communication trouble (Time-out)	
	99	Operation panel language error	
EE	EL	Developer adjustment trouble (Over-toned abnormality)	
	EU	Developer adjustment trouble (Under-toned abnormality)	
PF	00	RIC copy inhibit signal received	

## 2. Self diagnostics

Trouble code		Details of trouble	
Main code	Sub code		
A0	01	Content	Security incompatibility error
		Details	When the PCL or the FAX board is installed, it does not match with compatible/incompatible setup of the MCU board security.
		Cause	The security compatibility/incompatibility of the installed PCL or FAX board does not match with that of the MCU board.
		Check and remedy	Check the security compatibility/incompatibility of each board. Match the security compatibility/incompatibility of the boards.
E1	00	Content	MCU-IMC communication trouble
		Details	Communication establishment error/framing/parity/protocol error
		Cause	IMC PWB connector disconnection Motherboard connector pin breakage IMC PWB ROM defect, data failure
		Check and remedy	Check the connectors of the IMC PWB and MCU PWB. Check the grounding of the copier. Check the ROM of the IMC PWB.
	10	Content	IMC PWB trouble
		Details	Communication trouble between MCU and IMC PWB
		Cause	IMC PWB connector disconnection Motherboard connector pin breakage IMC PWB ROM defect, data failure
		Check and remedy	Check the connectors of the IMC PWB and MCU PWB. Check the grounding of the copier. Check the ROM of the IMC PWB.
	11	Content	IMC board ASIC error
		Details	ASIC abnormality on IMC board
		Cause	IMC board abnormality
		Check and remedy	Replace the IMC PWB.
	12	Content	IMC board CODEC IC error
		Details	CODEC IC (JBIG chip) abnormality on IMC board
		Cause	IMC board abnormality
		Check and remedy	Replace the IMC PWB.
	13	Remarks	JBIG IC abnormality
		Content	IMC board flash ROM error
		Details	Flash ROM abnormality on IMC board
		Cause	IMC board abnormality
		Check and remedy	Replace the IMC PWB. "When the program download is abnormally terminated, a error may occur. In this case, download the program again."
		Remarks	Program ROM abnormality

Trouble code		Details of trouble	
Main code	Sub code		
E1	14	Content	IMC board expanded memory module (DIMM) error
		Details	IMC extended compression memory module installation error IMC extended compression memory access error
		Cause	IMC expanded memory module installation trouble IMC expanded memory module trouble IMC expanded memory contact trouble IMC board abnormality
		Check and remedy	Check installation of the expanded memory module. (Spec: Added to Slot 1.) Replace the expanded memory module. Replace the IMC PWB.
		Remarks	Extend memory abnormality for compressed image store (DIMM module)
	15	Content	IMC board Page Memory error/SRAM error
		Details	IMC Page Memory Work SRAM abnormality
		Cause	IMC board abnormality
		Check and remedy	Replace the IMC PWB.
		Remarks	Print Buffer Page Memory or Work SRAM abnormality
	16	Content	IMC board compression image store memory error
		Details	Access error of IMC standard compression memory
		Cause	IMC board abnormality
		Check and remedy	Replace the IMC PWB.
	17	Content	IMC board smoothing IC error
		Details	IMC smoothing IC abnormality
		Cause	IMC board abnormality
		Check and remedy	Replace the IMC PWB.
	80	Content	IMC PWB communication trouble (protocol)
		Details	Communication trouble between MCU and IMC PWB (Protocol error)
		Cause	IMC PWB connector disconnection Motherboard connector pin breakage IMC PWB ROM defect, data failure
		Check and remedy	Check the connectors of the IMC PWB and MCU PWB. Check the grounding of the copier. Check the ROM of the IMC PWB.
	81	Content	IMC PWB communication trouble (Parity)
		Details	Communication trouble between MCU and printer IMC (Parity error)
		Cause	IMC PWB connector disconnection Motherboard connector pin breakage IMC PWB ROM defect, data failure
		Check and remedy	Check the connectors of the IMC PWB and MCU PWB. Check the grounding of the copier. Check the ROM of the IMC PWB.

Trouble code		Details of trouble	
Main code	Sub code		
E1	82	Content	IMC PWB communication trouble (Overrun)
		Details	Communication trouble between MCU and IMC PWB (Overrun error)
		Cause	IMC PWB connector disconnection Motherboard connector pin breakage IMC PWB ROM defect, data failure
		Check and remedy	Check the connectors of the IMC PWB and MCU PWB. Check the grounding of the copier. Check the ROM of the IMC PWB.
	84	Content	IMC PWB communication trouble (Framing)
		Details	Communication trouble between MCU and IMC PWB (Framing error)
		Cause	IMC PWB connector disconnection Motherboard connector pin breakage IMC PWB ROM defect, data failure
		Check and remedy	Check the connectors of the IMC PWB and MCU PWB. Check the grounding of the copier. Check the ROM of the IMC PWB.
	88	Content	IMC PWB communication trouble (Time-out)
		Details	Communication trouble between MCU and IMC PWB (Time-out error)
		Cause	IMC PWB connector disconnection Motherboard connector pin breakage IMC PWB ROM defect, data failure
		Check and remedy	Check the connectors of the IMC PWB and MCU PWB. Check the grounding of the copier. Check the ROM of the IMC PWB.
E7	02	Content	LSU trouble
		Details	BD signal from LSU is not detected in a constant cycle. (Kept OFF or ON)
		Cause	LSU connector or LSU inside harness trouble or disconnection Polygon motor rotation abnormality Laser does not illuminate. MCU PWB failure
		Check and remedy	Check for disconnection of the LSU connector. Check the LSU operation with SIM 61-1. Check that the polygon motor rotates normally. Check laser LED lighting. LSU replacement Replace the MCU PWB.
	10	Content	Shading trouble (black correction)
		Details	CCD black reference plate scan level abnormality when the copy lamp turns off.
		Cause	Flat cable installation failure to CCD unit CCD unit error
		Check and remedy	Check flat cable installation to the CCD unit. Check CCD unit.

Trouble code		Details of trouble	
Main code	Sub code		
E7	11	Content	Shading trouble (white correction)
		Details	Improper CCD white reference plate reading level for copy lamp lighting
		Cause	Flat cable installation failure to CCD unit "Dirt on the mirror, lens, and reference white plate" Copy lamp operation error CCD unit abnormality MCU PWB abnormality (Occurred in the SPF scan position.)
		Check and remedy	"Clean the mirror, the lens, and the reference white plate." Check the copy lamp light quantity and its operation. (SIM 5-3) Check CCD unit. Check MCU PWB.
	12	Content	Shading trouble
		Details	White correction is not completed in the specified number of times.
		Cause	Flat cable installation failure to CCD unit "Dirt on the mirror, lens, and reference white plate" Copy lamp lighting trouble CCD unit abnormality MCU PWB abnormality
		Check and remedy	"Clean the mirror, the lens, and the reference white plate." Check the copy lamp light quantity and its operation. (SIM 5-3) Check CCD unit. Check MCU PWB.
	F1	Content	Finisher communication trouble
		Details	Communication line test error occurs when power is turned on or after the exit of a simulation mode. Error in Finisher communication
		Cause	Connection trouble or disconnection of the connector and harness between the body and the finisher. Finisher control PWB trouble Control PWB failure Malfunction by noises
		Check and remedy	Turn off/of the power to cancel the trouble. Check connector/harness of communication line Replace the finisher control PWB.
	01	Content	Side guide plated home position error
		Details	The side guide plate cannot return to the home position.
		Cause	Side guide plate drive motor abnormality Side guide plate home position sensor abnormality Finisher PWB abnormality
		Check and remedy	Use SIM3-3-1 to check the side guide plate motor operation.
	06	Content	Offset motor trouble
		Details	When the offset motor of the finisher is driven it does not reach the specified position.
		Cause	Offset motor abnormality Offset motor origin sensor abnormality Finisher PWB abnormality
		Check and remedy	Use SIM 3-3-6 to check the offset motor operation.

Trouble code		Details of trouble	
Main code	Sub code		
F1	08	Content	Staple motor error
		Details	The staple motor cannot return to the home position.
		Cause	Staple motor abnormality Staple motor home position sensor abnormality Staple unit abnormality Finisher PWB abnormality
		Check and remedy	Use SIM 3-3-7 to check the staple motor operation.
	11	Content	Rear edge plate home position error
		Details	The rear edge plate cannot return to the home position.
		Cause	Rear edge plate drive motor abnormality Side guide plate home position sensor abnormality Finisher PWB abnormality
		Check and remedy	Use SIM 3-3-2 to check the rear edge plate motor operation.
	15	Content	Finisher lift-up motor trouble
		Details	The finisher lift-up motor does not reach the specified position.
		Cause	Lift-up motor abnormality Lift-up motor upper limit sensor abnormality Finisher PWB abnormality
		Check and remedy	Use SIM 3-3-5 to check the lift-up motor operation.
F2	02	Content	Toner supply failure
		Details	The value judged from the actual toner supply hysteresis differs greatly from the toner sensor value.
		Cause	Developing unit trouble Toner supply abnormality caused by installation of unpacked toner cartridge
		Check and remedy	Replace the developing unit Use SIM 25-1 to perform DV stirring.

Trouble code		Details of trouble	
Main code	Sub code		
F2	04	Content	Identification error
			Model error
			Type error
			Destination error
			Data abnormality
			Misc error
		Details	Identification error When the CRUM trademark differs. When the CRUM company code differs.
			Model error When the boot program model code does not match with the CRUM model information.
			Type error When the CRUM type is other than [Genuine/Conversion/Production rotation].
			Destination error The destination of the body differs from that of the CRUM.
			Data abnormality The initial check information includes an erroneous value. When the max. toner supply time is 00: When the print hard stop is 00:
			Cause CRUM chip failure Erroneous developing unit
			Check and remedy Replace the CRUM chip. Replace the developing unit
	02	Content	Copy lamp lighting abnormality
		Details	The copy lamp does not light up.
F5		Cause	Copy lamp error Copy lamp harness abnormality CCD PWB harness abnormality
		Check and remedy	Check the copy lamp (SIM 5-3) When the lamp lights: Check the harnesses and connectors between the CCD unit and the MCU PWB. When the lamp does not light: Check the harness and connector between the copy lamp and the MCU PWB. Replace the copy lamp unit. Replace the MCU PWB.
		Remarks	Copy lamp disconnection Cable is not attached.
F6	00	Content	MCU-FAX communication trouble
		Details	Communication establishment error/ framing/parity/protocol error
		Cause	FAX control PWB connector disconnection Defective harness between FAX control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM error/Data error
		Check and remedy	Check connector/harness of FAX control PWB and MCU PWB. Check the grounding of the copier. Check FAX control PWB ROM.

Trouble code		Details of trouble	
Main code	Sub code		
F6	10	Content	FAX control PWB trouble
		Details	Communication trouble between MCU and FAX control PWB
		Cause	FAX control PWB connector disconnection Defective harness between FAX control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM error/Data error IC on FAX PWB causes abnormality
		Check and remedy	Check connector/harness of FAX control PWB and MCU PWB. Check the grounding of the copier. Check FAX control PWB ROM. Replace the FAX PWB.
	80	Content	FAX control PWB communication trouble (Protocol)
		Details	Communication trouble between MCU and FAX control PWB (Protocol error)
		Cause	FAX control PWB connector disconnection Defective harness between FAX control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM error/Data error
		Check and remedy	Check connector/harness of FAX control PWB and MCU PWB. Check the grounding of the copier. Check FAX control PWB ROM.
	81	Content	FAX control PWB communication trouble (Parity)
		Details	Communication trouble between MCU and FAX control PWB (Parity error)
		Cause	FAX control PWB connector disconnection Defective harness between FAX control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM error/Data error
		Check and remedy	Check connector/harness of FAX control PWB and MCU PWB. Check the grounding of the copier. Check FAX control PWB ROM.
	82	Content	FAX control PWB communication trouble (Over-run)
		Details	Communication trouble between MCU and FAX control PWB (Overrun error)
		Cause	FAX control PWB connector disconnection Defective harness between FAX control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM error/Data error
		Check and remedy	Check connector/harness of FAX control PWB and MCU PWB. Check the grounding of the copier. Check FAX control PWB ROM.
	84	Content	FAX control PWB communication trouble (Framing)
		Details	Communication trouble between MCU and FAX control PWB (Framing error)
		Cause	FAX control PWB connector disconnection Defective harness between FAX control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM error/Data error
		Check and remedy	Check connector/harness of FAX control PWB and MCU PWB. Check the grounding of the copier. Check FAX control PWB ROM.

Trouble code		Details of trouble	
Main code	Sub code		
F6	88	Content	FAX control PWB communication trouble (Timeout)
		Details	Communication trouble between MCU and FAX control PWB (Timeout error)
		Cause	FAX control PWB connector disconnection Defective harness between FAX control PWB and MCU PWB Motherboard connector pin breakage FAX control PWB ROM error/Data error
		Check and remedy	Check connector/harness of FAX control PWB and MCU PWB. Check the grounding of the copier. Check FAX control PWB ROM.
	99	Content	FAX control PWB destination error
		Details	The machine destination setup does not coincide with the FAX board destination setup.
		Cause	The machine destination setup (Sim 26-6) does not coincide with the FAX board setup
		Check and remedy	Check the variety of FAX LIU PWB. Check the machine destination setup (Sim 22-6) and FAX country code (Soft SW table).
	00	Content	MCU-PRT communication trouble
		Details	Communication establishment error/framing/parity/protocol error
		Cause	Printer PWB connector disconnection Harness trouble between the printer PWB and the MCU PWB Motherboard connector pin breakage Printer PWB ROM trouble/Data disturbance
		Check and remedy	Check the connectors and harness of the printer PWB and MCU PWB. Check the grounding of the copier. Check ROM on printer PWB.
F9	10	Content	Printer PWB trouble
		Details	Communication trouble between MCU and printer PWB
		Cause	Printer PWB connector disconnection Harness trouble between the printer PWB and the MCU PWB Motherboard connector pin breakage Printer PWB ROM trouble/Data disturbance
		Check and remedy	Check the connectors and harness of the printer PWB and MCU PWB. Check the grounding of the copier. Check ROM on printer PWB.
	80	Content	Printer PWB communication trouble (Protocol)
		Details	Communication trouble between MCU and printer PWB (Protocol error)
		Cause	Printer PWB connector disconnection Harness trouble between the printer PWB and the MCU PWB Motherboard connector pin breakage Printer PWB ROM trouble/Data disturbance
		Check and remedy	Check the connectors and harness of the printer PWB and MCU PWB. Check the grounding of the copier. Check ROM on printer PWB.

Trouble code		Details of trouble	
Main code	Sub code		
F9	81	Content	Printer PWB communication trouble (Parity)
		Details	Communication trouble between MCU and printer PWB (Parity error)
		Cause	Printer PWB connector disconnection Harness trouble between the printer PWB and the MCU PWB Motherboard connector pin breakage Printer PWB ROM trouble/Data disturbance
		Check and remedy	Check the connectors and harness of the printer PWB and MCU PWB. Check the grounding of the copier. Check ROM on printer PWB.
	82	Content	Printer PWB communication trouble (Overrun)
		Details	Communication trouble between MCU and printer PWB (Overrun error)
		Cause	Printer PWB connector disconnection Harness trouble between the printer PWB and the MCU PWB Motherboard connector pin breakage Printer PWB ROM trouble/Data disturbance
		Check and remedy	Check the connectors and harness of the printer PWB and MCU PWB. Check the grounding of the copier. Check ROM on printer PWB.
	84	Content	Printer PWB communication trouble (Framing)
		Details	Communication trouble between MCU and printer PWB (Framing error)
		Cause	Printer PWB connector disconnection Harness trouble between the printer PWB and the MCU PWB Motherboard connector pin breakage Printer PWB ROM trouble/Data disturbance
		Check and remedy	Check the connectors and harness of the printer PWB and MCU PWB. Check the grounding of the copier. Check ROM on printer PWB.
	88	Content	Printer PWB communication trouble (Timeout)
		Details	Communication trouble between MCU and printer PWB (Timeout error)
		Cause	Printer PWB connector disconnection Harness trouble between the printer PWB and the MCU PWB Motherboard connector pin breakage Printer PWB ROM trouble/Data disturbance
		Check and remedy	Check the connectors and harness of the printer PWB and MCU PWB. Check the grounding of the copier. Check ROM on printer PWB.

Trouble code		Details of trouble	
Main code	Sub code		
F9	99	Content	Machine-PCL board language error
		Details	The machine language setup does not coincide with the PCL board language setup.
		Cause	PCL board connection error SIM setup error
		Check and remedy	Check the firmware of the PCL board and the combination of the panel screen data, and download the correct version, if necessary. Check the machine language information. (Machine language setup: SIM 26-22)
H2	00	Content	Main heater lamp thermistor open hard detection
		Details	Main heater lamp thermistor open detection Fusing unit not installed
		Cause	Thermistor defect Control PWB failure Fusing section connector contact failure Fusing unit not installed
		Check and remedy	Check the harness and the connector of the thermistor and the MCU. Clear the display of self-diagnostics with SIM 14.
		Remarks	Thermistor open
	01	Content	Sub heater lamp thermistor open hard detection
		Details	Sub heater lamp thermistor open detection Fusing unit not installed
		Cause	Thermistor defect Control PWB failure Fusing section connector contact failure Fusing unit not installed
		Check and remedy	Check the harness and the connector of the thermistor and the MCU. Clear the display of self-diagnostics with SIM 14.
		Remarks	Thermistor open
H3	00	Content	Main heater lamp abnormally high temperature hard detection trouble
		Details	The fusing main heater thermistor causes abnormally high temperature.
		Cause	Main heater lamp thermistor defect Control PWB failure Fusing section connector contact failure
		Check and remedy	Check the main heater lamp blinking with SIM 5-2-1. When the lamp blinks normally: Check the thermistor and the harness. Check the MCU PWB thermistor input circuit. If lamp lights and stays lit: Check the power PWB and the MCU PWB lamp control circuit. Clear the display of self-diagnostics with SIM 14.

Trouble code		Details of trouble	
Main code	Sub code		
H3	01	Content	Sub heater lamp abnormally high temperature hard detection trouble
		Details	The fusing sub heater thermistor causes abnormally high temperature.
		Cause	Sub heater lamp Thermistor defect Control PWB failure Fusing section connector contact failure
		Check and remedy	Check the sub heater lamp blinking with SIM 5-2-2. When the lamp blinks normally: Check the thermistor and the harness. Check the MCU PWB thermistor input circuit. If lamp lights and stays lit: Check the power PWB and the MCU PWB lamp control circuit. Clear the display of self-diagnostics with SIM 14.
H3	10	Content	Main heater lamp abnormally high temperature soft detection trouble
		Details	A/D value the fusing main heater lamp thermistor causes abnormally high temperature (over 230°C).
		Cause	Main heater lamp thermistor defect Control PWB failure Fusing section connector contact failure
		Check and remedy	Check the main heater lamp blinking with SIM 5-2-1. When the lamp blinks normally: Check the thermistor and the harness. Check the MCU PWB thermistor input circuit. If lamp lights and stays lit: Check the power PWB and the MCU PWB lamp control circuit. Clear the display of self-diagnostics with SIM 14.
	11	Content	Sub heater lamp abnormally high temperature soft detection trouble
		Details	A/D value the fusing sub heater lamp thermistor causes abnormally high temperature (over 230°C).
		Cause	Sub heater lamp thermistor defect Control PWB failure Fusing section connector contact failure
		Check and remedy	Check the sub heater lamp blinking with SIM 5-2-2. When the lamp blinks normally: Check the thermistor and the harness. Check the MCU PWB thermistor input circuit. If lamp lights and stays lit: Check the power PWB and the MCU PWB lamp control circuit. Clear the display of self-diagnostics with SIM 14.

Trouble code		Details of trouble	
Main code	Sub code		
H4	00	Content	Main heater lamp abnormally low temperature detection
		Details	The setup temperature (about 90°C) is not reached within the specified time (about 17sec) from turning on the power ON SW. (When the temperature of main heater lamp thermistor falls below 140°C in the standby mode or printing.) Whether temperature of main heater lamp thermistor falls below 50°C in the pre-heat mode.
		Cause	Main heater lamp thermistor defect Main heater lamp failure Main thermostat failure Control PWB failure
		Check and remedy	Check the heater lamp blinking with SIM 5-2. When the lamp blinks normally: Check the thermistor and the harness. Check the MCU PWB thermistor input circuit. When the lamp does not light: Check for disconnection of the heater lamp and thermostat. Check the interlock switch. Check the power PWB and the MCU PWB lamp control circuit. Clear the display of self-diagnostics with SIM 14.
	01	Content	Sub heater lamp abnormally low temperature detection
		Details	The setup temperature (about 90°C) is not reached within the specified time (about 17sec) from turning on the power ON SW. (When the temperature of sub heater thermistor falls below 140°C in the standby mode or printing.) Whether temperature of sub heater lamp thermistor falls below 50°C in the pre-heat mode.
		Cause	Sub heater lamp thermistor defect Sub heater lamp failure Sub thermostat failure Control PWB failure
		Check and remedy	Check the sub heater lamp blinking with SIM 5-2-2. When the lamp blinks normally: Check the thermistor and the harness. Check the MCU PWB thermistor input circuit. When the lamp does not light: Check for disconnection of the heater lamp and thermostat. Check the interlock switch. Check the power PWB and the MCU PWB lamp control circuit. Clear the display of self-diagnostics with SIM 14.

Trouble code		Details of trouble	
Main code	Sub code		
H4	20	Content	Main heater lamp abnormally low temperature detection
		Details	The setup temperature (about -25°C: Sim 43-1-1) is not reached within the specified time (about 32sec) from turning on the power ON SW. (When the temperature falls below 140°C in the standby mode.)
		Cause	Main heater thermistor defect Main heater lamp failure Main thermostat failure Control PWB failure
		Check and remedy	Check the main heater lamp blinking with SIM 5-2. When the lamp blinks normally: Check the thermistor and the harness. Check the MCU PWB thermistor input circuit. When the lamp does not light: Check for disconnection of the heater lamp and thermostat. Check the interlock switch. Check the power PWB and the MCU PWB lamp control circuit. Clear the display of self-diagnostics with SIM 14.
	21	Content	Sub heater lamp abnormally low temperature detection
		Details	The setup temperature (about -25°C: Sim 43-1-1) is not reached within the specified time (about 32sec) from turning on the power ON SW. (When the temperature falls below 140°C in the standby mode.)
		Cause	Sub heater thermistor defect Sub heater lamp failure Sub thermostat failure Control PWB failure
		Check and remedy	Check the sub heater lamp blinking with SIM 5-2-2. When the lamp blinks normally: Check the thermistor and the harness. Check the MCU PWB thermistor input circuit. When the lamp does not light: Check for disconnection of the heater lamp and thermostat. Check the interlock switch. Check the power PWB and the MCU PWB lamp control circuit. Clear the display of self-diagnostics with SIM 14.
H5	01	Content	10 continuous POD1, POD2 or PPD2 JAM
		Details	POD1, POD2, PPD2 JAM was detected 10 continuous times from turning on the power ON.
		Cause	The fusing JAM is not completely removed. (Jam paper remains.) POD1, POD2, PPD2 sensor breakdown or harness connection trouble Fusing unit installation failure
		Check and remedy	Check for jam paper in the fusing section. (paper winding, etc.) Check fusing unit installation. Check the POD1, POD2 or PPD2 sensor. Clear the trouble with SIM 14.

Trouble code		Details of trouble	
Main code	Sub code		
L1	00	Content	Scanner feed trouble
		Details	Scanner feed is not completed within the specified time.
		Cause	Mirror unit defect Scanner wire disconnection Origin detection sensor error Mirror motor harness abnormality
		Check and remedy	Check the scanning operation with SIM 1-1. Mirror base feed trouble Check for disconnection of the scanner wire. Check the harness and connector between the mirror motor and the MCU PWB. Replace the mirror unit. Replace the MCU PWB. When the mirror feeds: Check the mirror home position sensor with SIM 1-2.
L3	00	Content	Scanner return trouble
		Details	Scanner return is not completed within the specified time. "When OC copying with the mirror at the home position, the mirror is not in the home position."
		Cause	Mirror unit defect The scanner wire is disconnected. Origin detection sensor error Mirror motor harness abnormality
		Check and remedy	Check the scanning operation with SIM 1-1. Mirror base return trouble Check for disconnection of the scanner wire. Check the harness and connector between the mirror motor and the MCU PWB. Replace the mirror unit. Replace the MCU PWB. When the mirror feeds: Check the mirror home position sensor with SIM 1-2.
L4	01	Content	Main motor trouble
		Details	The main motor does not rotate. The motor lock signal is detected for 1sec or more after the main motor rotates. The motor lock signal is detected for 1sec during rotation of the main motor.
		Cause	Main motor defect Main motor connection, harness trouble or disconnection MCU PWB failure
		Check and remedy	Check the main motor operation with SIM 25-1. Check connection of the main motor harness and connector. Replace the main motor. Replace the MCU PWB.



Trouble code		Details of trouble	
Main code	Sub code		
L4	11	Content	Shifter motor trouble
		Details	The shifter home position detection signal is not detected when the shifter is operating.
		Cause	Shifter motor trouble or harness connection trouble and disconnection Shifter home position sensor trouble
		Check and remedy	Check the shifter motor operation with SIM 3-11. Check connection of the shifter motor harness/connector. Replace the shifter motor. Replace the MCU PWB.
L6	10	Content	Polygon motor lock trouble
		Details	The polygon motor does not rotate. The motor lock signal is detected for 6sec or more after the polygon motor rotates. The motor lock signal is detected for 1sec during rotation of the polygon motor.
		Cause	Polygon motor unit failure Polygon motor connection, harness trouble or disconnection MCU PWB failure
		Check and remedy	Check the polygon motor operation with SIM 61-1. Check connector/harness of polygon motor Replace the polygon motor. Replace the MCU PWB.
L8	10	Content	Power abnormality detection trouble
		Details	The power status monitoring signal keeps power OFF state after passing the specified time (2sec).
		Cause	Circuit around the power status monitoring signal failure.
		Check and remedy	Check whether power status monitoring signal on MCU PWB is OPEN or not. Replace MCU PWB.
U1	01	Content	FAX battery error
		Details	The SRAM backup battery voltage on FAX PWB falls.
		Cause	The SRAM backup battery voltage on FAX PWB falls.
		Check and remedy	Check voltage of the SRAM back up battery. Replace the battery.
	02	Content	PANEL LOW battery error
		Details	The voltage of the panel clock function battery falls.
		Cause	The voltage of the panel clock function battery falls.
		Check and remedy	Check voltage of panel clock function battery. Replace the battery.
U2	04	Content	EEPROM communication error
		Details	MCU PWB EEPROM access circuit failure
		Cause	EEPROM defective ICU PWB EEPROM access circuit failure
		Check and remedy	Check that the EEPROM is properly set. Clear trouble with SIM 16. Replace the MCU PWB.
		Remarks	EEPROM abnormality

Trouble code		Details of trouble	
Main code	Sub code		
U2	20	Content	Machine speed code data error
		Details	The machine (Boot) speed information is not identical to the model code speed information.
		Cause	EEPROM defective SIM operation error
		Check and remedy	Check that the machine set with SIM 26-57 is identical to the model information.
		Remarks	When the boot program speed code does not match with the body model information.
	40	Content	CRUM chip communication error
		Details	Error in MCU-CRUM chip communication
		Cause	CRUM chip failure Developing unit contact trouble MCU PWB failure
		Check and remedy	Replace the CRUM chip. Check installation of the developing unit. Clear the trouble with SIM 16. Replace the MCU PWB.
		Remarks	CRUM communication error
U7	00	Content	RIC communication trouble
		Details	Error in communication with RIC Error in communication test after turning on the power or canceling SIM.
		Cause	Connector harness contact trouble or disconnection RIC control PWB trouble MCU PWB failure Malfunction by noises
		Check and remedy	Check the communication cable, connectors from the RIC box to the main body.
U9	00	Content	MCU-OPE communication trouble
		Details	Communication establishment error/framing/parity/protocol error
		Cause	Operation control PWB connector disconnection Operation control PWB MCU PWB harness failure
		Check and remedy	Check the connectors and harness of the operation control PWB and MCU PWB. Check the grounding of the copier. Check ROM on the operation control PWB.
	80	Content	Operation control PWB communication trouble (Protocol)
		Details	Communication trouble between MCU and the operation control PWB (Protocol error)
		Cause	Operation control PWB connector disconnection Operation control PWB MCU PWB harness failure
		Check and remedy	Check the connectors and harness of the operation control PWB and MCU PWB. Check the grounding of the copier.

Trouble code		Details of trouble	
Main code	Sub code		
U9	81	Content	Operation control PWB communication trouble (Parity)
		Details	Communication trouble between MCU and the operation control PWB (Parity error)
		Cause	Operation control PWB connector disconnection Operation control PWB MCU PWB harness failure
		Check and remedy	Check the connectors and harness of the operation control PWB and MCU PWB. Check the grounding of the copier.
	82	Content	Operation control PWB communication trouble (Overrun)
		Details	Communication trouble between MCU and the operation control PWB (Overrun error)
		Cause	Operation control PWB connector disconnection Operation control PWB MCU PWB harness failure
		Check and remedy	Check the connectors and harness of the operation control PWB and MCU PWB. Check the grounding of the copier.
U9	84	Content	Operation control PWB communication trouble (Framing)
		Details	Communication trouble between MCU and the operation control PWB (Framing error)
		Cause	Operation control PWB connector disconnection Operation control PWB MCU PWB harness failure
		Check and remedy	Check the connectors and harness of the operation control PWB and MCU PWB. Check the grounding of the copier.
	88	Content	Operation control PWB communication trouble (Time-out)
		Details	Communication trouble between MCU and the operation PWB (Time-out error)
		Cause	Operation control PWB connector disconnection Operation control PWB MCU PWB harness failure
		Check and remedy	Check the connectors and harness of the operation control PWB and MCU PWB. Check the grounding of the copier.
	99	Content	Operation panel destination error
		Details	An error occurred in checking the destination of the operation panel and the main body.
		Cause	Erroneous connection the operation panel unit SIM setup error
		Check and remedy	Check the destination information of the operation panel unit and the MCU. (Use SIM 26-6 for the destination of the body.)

Trouble code		Details of trouble	
Main code	Sub code		
EE	EL	Content	Developer adjustment trouble (Over-toned abnormality)
		Details	An abnormality occurred in execution of automatic developer adjustment. Sample data was detected over-toner.
		Cause	Toner concentration sensor abnormality Toner concentration trouble Developing unit trouble MCU PWB failure
		Check and remedy	Use SIM 25-2 to perform the auto developer adjustment.
	EU	Content	Developer adjustment trouble (Under-toned abnormality)
		Details	An abnormality occurred in execution of automatic developer adjustment. Sample data was detected under-toner.
		Cause	Toner concentration sensor abnormality Toner concentration trouble Developing unit trouble MCU PWB failure
		Check and remedy	Use SIM 25-2 to perform the auto developer adjustment.
PF	00	Content	RIC communication error
		Details	The copy inhibit command from RIC is received.
		Cause	Judged by the host.
		Check and remedy	Inform to the host.

# [10] DISASSEMBLY, ASSEMBLY AND MAINTENANCE

## 1. Maintenance table

×: Check (Check, clean, replace or adjust according to necessity.)

○: Cleaning ▲: Replace ☆: Lubricate

Unit	Parts	75k	150k	225k	300k	375k	450k	Note
Process unit	Drum	▲	▲	▲	▲	▲	▲	
	Cleaning blade	▲	▲	▲	▲	▲	▲	
	Seal F/R	×	×	×	×	×	×	
	Drum frame unit	×	×	▲	×	×	▲	
	MC unit	▲	▲	▲	▲	▲	▲	MC unit supply only (Individual parts in MC unit can not be supplied.)
	Separation pawl unit	×	▲	×	▲	×	▲	Separation pawl unit supply only (Individual parts in separation pawl unit can not be supplied.)
Star ring	Star ring	×	×	×	×	×	×	
DV unit	Developer	▲	▲	▲	▲	▲	▲	
	DV seal	×	▲	×	▲	×	▲	
	DV side seal N	×	▲	×	▲	×	▲	
	DV side seal N2	×	▲	×	▲	×	▲	
	DV side mylar	×	▲	×	▲	×	▲	
	DV moquette	×	×	×	×	×	×	
	Toner sensor	×	×	×	×	×	×	
Fusing unit	Upper heat roller	○	▲	○	▲	○	▲	
	Lower heat roller	○	○	○	▲	○	○	
	Upper separation pawl	○	▲	○	▲	○	▲	
	Upper cleaning Pat	×	▲	×	▲	×	▲	
	Lower separation pawl	○	○	○	▲	○	○	
	Thermistor	○	○	○	○	○	○	
	Upper roller gear	☆	▲	☆	▲	☆	▲	
	Upper roller bush	×	▲	×	▲	×	▲	
	Lower heat roller bearing	×	×	×	▲	×	×	
	Paper guide	○	○	○	○	○	○	
Paper feed	Pickup roller (Multi bypass tray)	×	×	×	×	×	×	Changing criteria for parts: 100k
	Paper feeding sheet (Multi bypass tray)	×	×	×	×	×	×	Changing criteria for parts: 100k
	Pickup roller (500 sheets tray)	×	×	×	×	×	×	Changing criteria for parts: 100k
	Paper feeding sheet (500 sheets tray)	×	×	×	×	×	×	Changing criteria for parts: 100k
	Pickup roller and feed roller (SPF/RSPF)	×	×	×	×	×	×	
	Paper feeding sheet (SPF/RSPF)	×	×	×	×	×	×	Changing criteria for parts: 100k
Transport unit	Transport roller unit	○	▲	○	▲	○	▲	Transport unit supply only
	Gear	×	—	×	—	×	—	(Only transport gear is supplied as the service parts.)
Ozone filter	Ozone filter	▲	▲	▲	▲	▲	▲	
Others	Paper feed rollers	○	○	○	○	○	○	
	Gears	☆	☆	☆	☆	☆	☆	

## 2. Counter clear

Item	SIM	Remarks
Maintenance cycle setting	SIM 21-1	
Jam/trouble counter clear	SIM 24-1	
Paper feed counter clear	SIM 24-2	At maintenance
DF/Scan/Stapler counter clear	SIM 24-3	At maintenance
Maintenance counter clear	SIM 24-4	At drum replacement
Developing counter clear	SIM 24-5	At developer replacement
Copy counter clear	SIM 24-6	
Drum counter clear	SIM 24-7	At drum replacement
Printer, other counter clear	SIM 24-9	
FAX counter clear	SIM 24-10	
Scanner mode counter clear	SIM 24-15	

## 3. List of disassembly and assembly

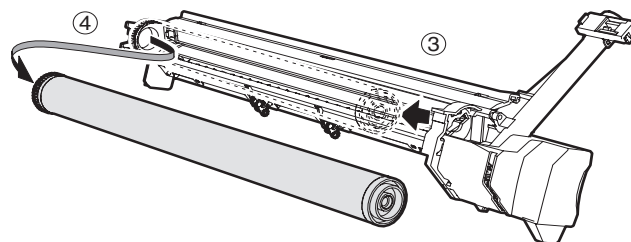
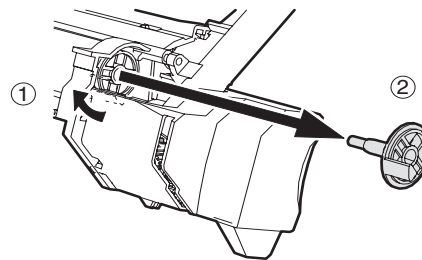
Unit	Parts			
A. Process unit	(1)	Drum		
	(2)	Drum section	a.	Main charger
			b.	Cleaning blade
			c.	Drum frame unit
			d.	Moquette F/R
			e.	Separation pawl
B. Developing unit	(1)	Developer		
	(2)	DV seal/side seal N/side seal N2/side mylar		

Unit	Parts		
C. Fusing unit	(1)	Thermostat	
	(2)	Thermistor	
	(3)	Paper guide	
	(4)	Fusing Separation Pawl (lower)	
	(5)	Lower heat roller	
	(6)	Heater lamp	
	(7)	Fusing Separation Pawl (upper)	
	(8)	Upper heat roller	
D. Optical section	(1)	CCD unit	
	(2)	Lamp unit	a. Lamp
			b. PWB
			c. Wire
			d. Mirror motor
E. Paper feed section	(1)	Paper feed solenoid	
	(2)	Cassette sensor PWB	
	(3)	Manual P-in sensor/Manual empty sensor	
	(4)	Multi manual paper feed	a. Paper feed roller/pickup roller
			b. Reverse sensor
			c. Separation sheet
			d. Clutch/solenoid
	(5)	Upper 500 sheets tray paper feed	a. Paper feed roller/pickup roller
			b. Separation sheet
	(6)	Lower 500 sheets tray paper feed	a. Paper feed roller/pickup roller
			b. Separation sheet
			c. Lift up unit
			d. Transport clutch
			e. Paper feed clutch
			f. Transport clutch
			g. Solenoid
			h. Sensor PWB
			i. Dehumidification heater
F. Side door unit	(1)	Transport roller unit	
	(2)	Transport roller	
	(3)	DUP transport roller	
	(4)	DUP motor	
G. 1st paper exit unit	(1)	Exit roller	
	(2)	Cooling fan	
H. 2nd paper exit unit	(1)	Switch	
	(2)	Sensor	
	(3)	Roller	
I. Laser unit	(1)	LSU	
J. Power unit	(1)	Power source	
K. PWB	(1)	Option CN PWB	
	(2)	IMC PWB	
	(3)	MCU PWB	
	(4)	Motherboard PWB	
	(5)	Second interface PWB	
L. Ozone filter			
M. Drive section	(1)	DUP reverse motor	
	(2)	Main drive motor	
	(3)	Toner motor	
	(4)	Drive unit	
	(5)	PS transport clutch	
	(6)	Paper feed clutch	
	(7)	Lift up motor	
N. Transport section	(1)	Transport roller	
O. Operation section	(1)	Operation section	
	(2)	OPU PWB	
	(3)	Key PWB	
	(4)	LCD unit	
P. Switch	(1)	Power switch/	

## 4. Details of disassembly and assembly

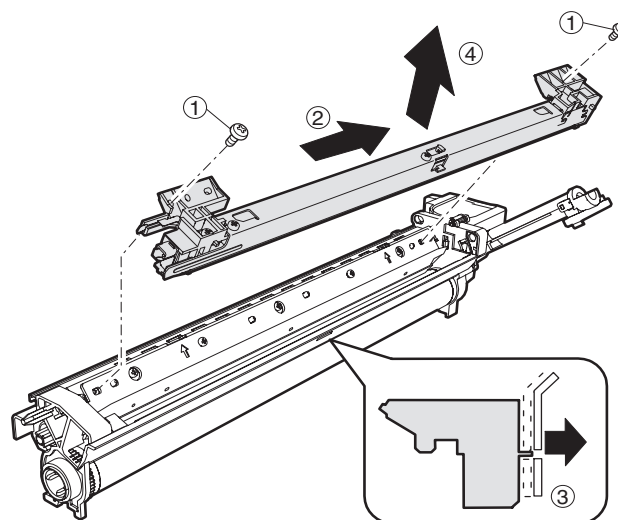
### A. Process unit

#### (1) Drum

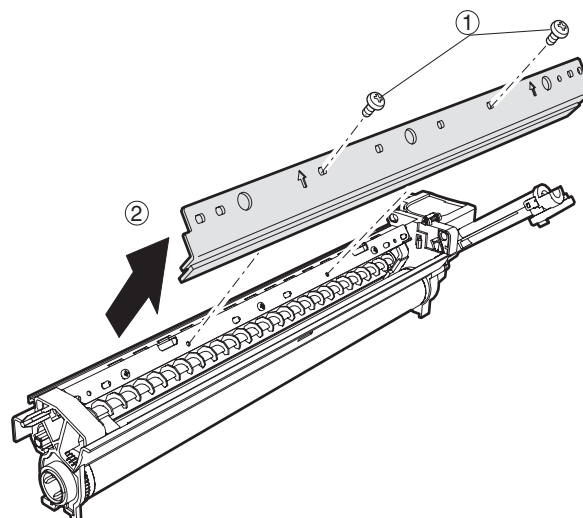


#### (2) Drum section

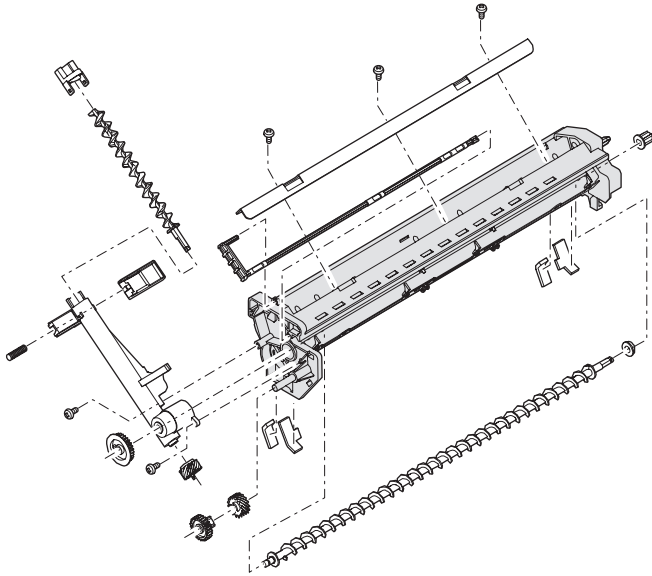
##### a. Main charger



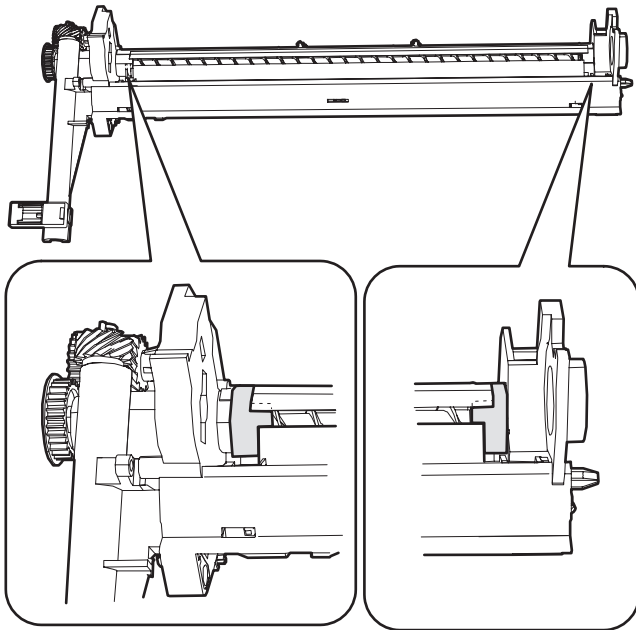
##### b. Cleaning blade



### c. Drum frame unit



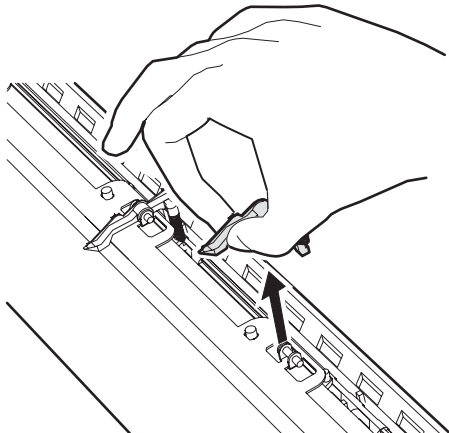
### d. Moquette F/R



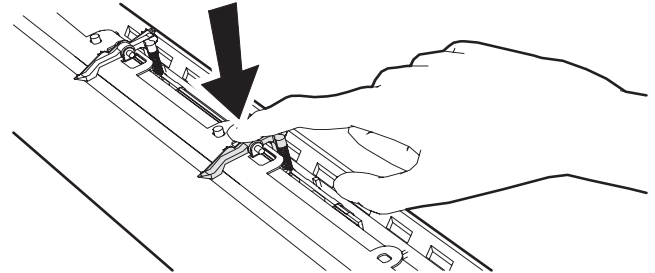
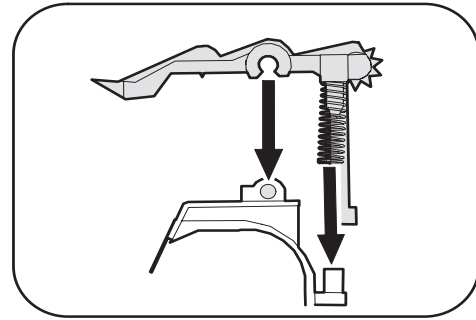
Note: If it disturbs the blade movement, replace it and attach new one.

### e. Separation pawl

Disassembly\* Hold the tip of the separation pawl and remove it.

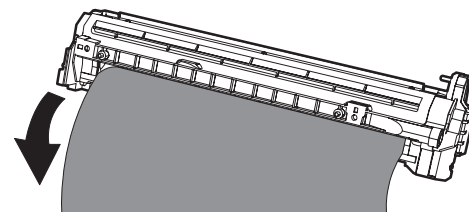
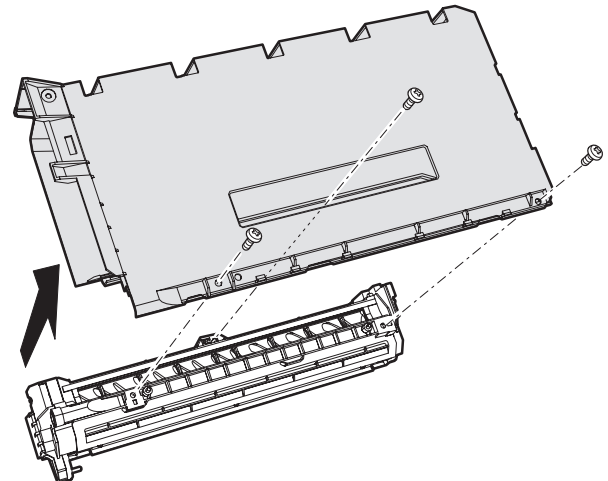
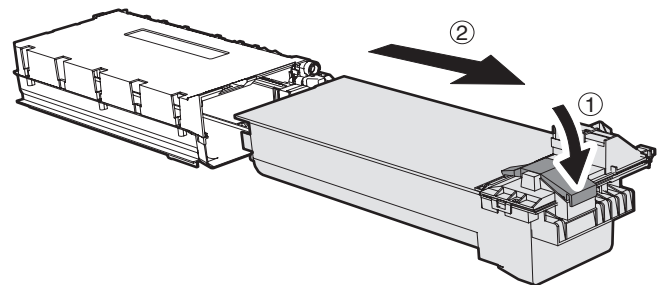


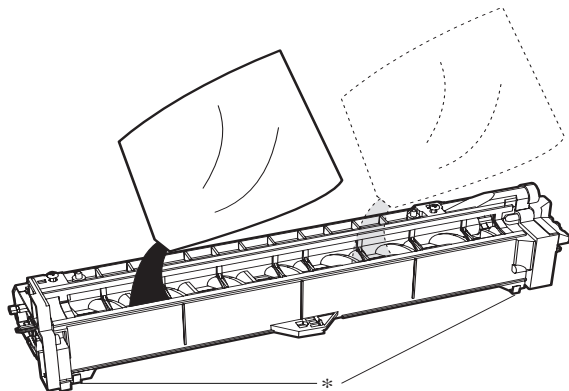
Assembly\* Press the center of the separation pawl and install it.



## B. Developing section

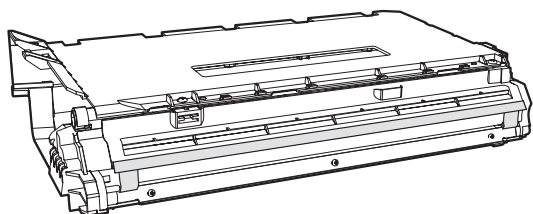
### (1) Developer



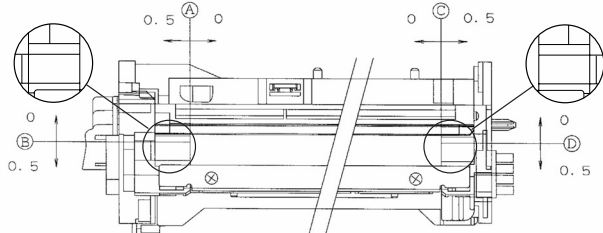


\* When assembling, check that the hook is securely engaged in two positions.

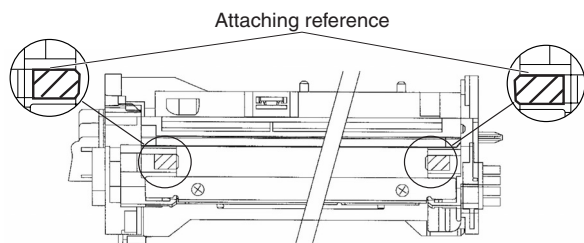
## (2) DV seal/side seal



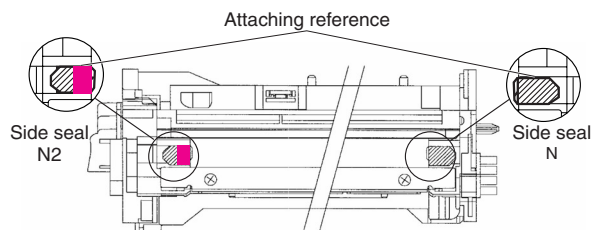
### [DV seal attachment procedure]



- 1) When attaching the DV side Mylar, check the position shown in the figure below and attach it properly.



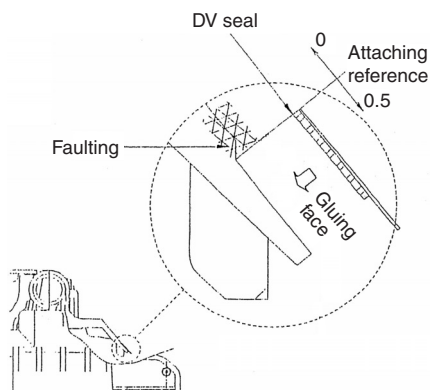
- 2) When attaching the DV side seal, check the position shown in the figure below and attach it properly. (First of all, attach the DV side Mylar.)



The attachment reference is the same, but the area of the N2 shape is reduced to half as shown with the red square in the above figure.

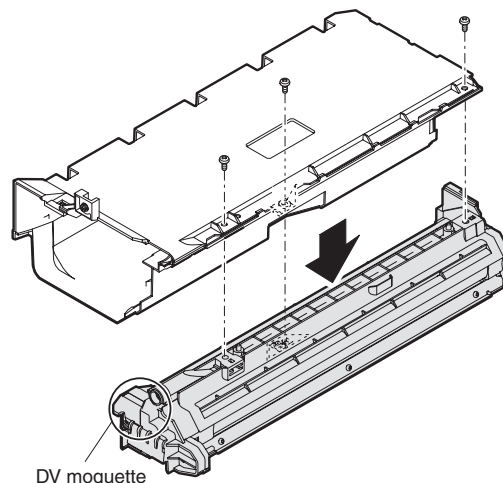
\* Be sure to attach the DV side sheet so that the notch is on the outside.

Note: Attach it to fit with the attachment reference when replacing the DV seal.

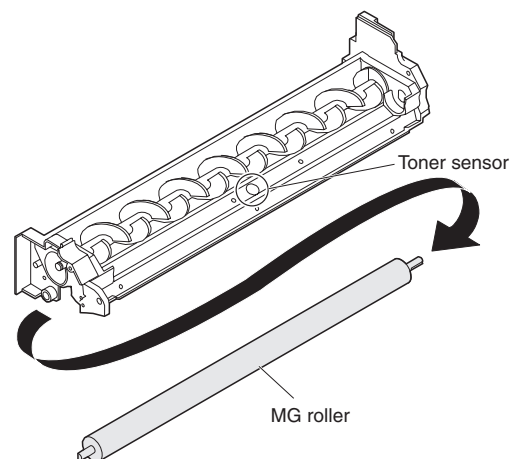


## (3) DV moquette/Toner sensor

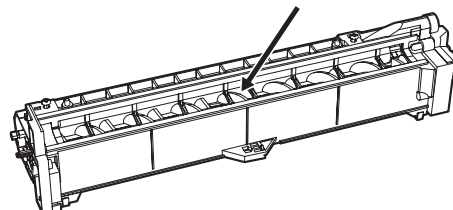
### a. DV moquette



### b. Toner sensor

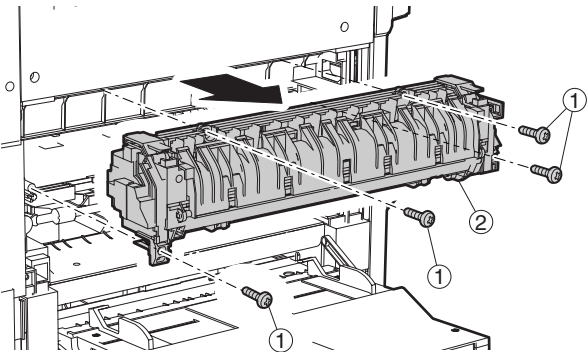
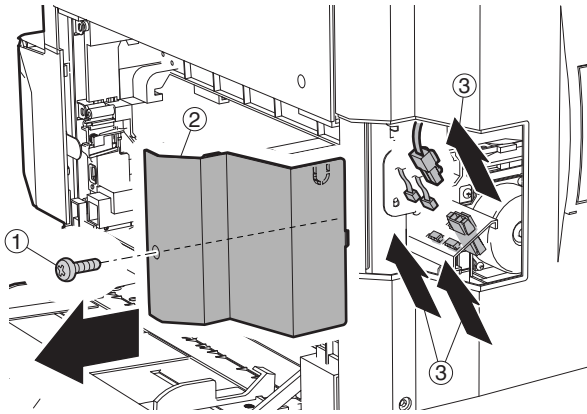


- Clean the sensor only after removing used DV when replacing DV.
- There is no need to remove the MG roller as shown in the above figure. Use waste cloth to remove toner from the sensor surface in the arrow direction shown in the figure below.

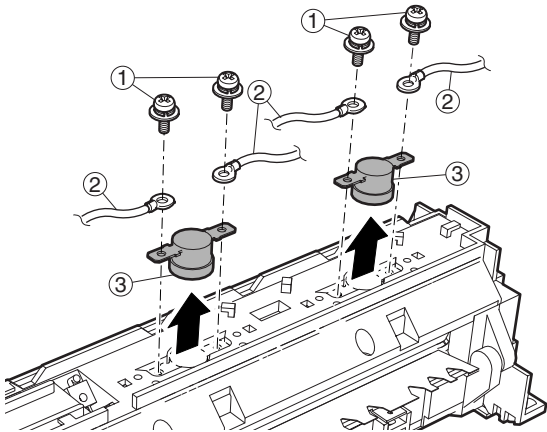




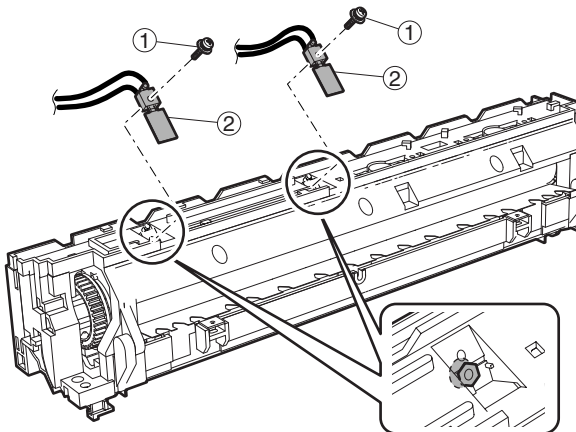
## C. Fusing section



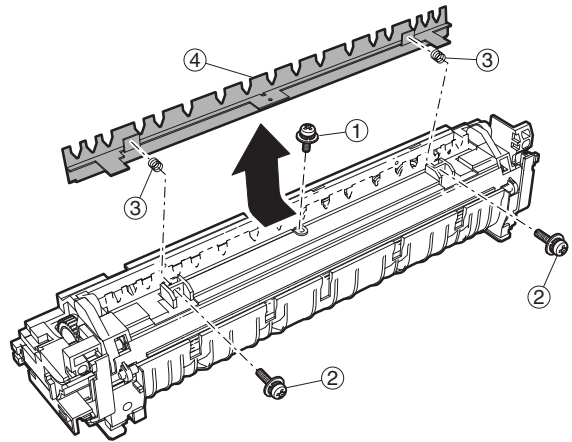
### (1) Thermostat



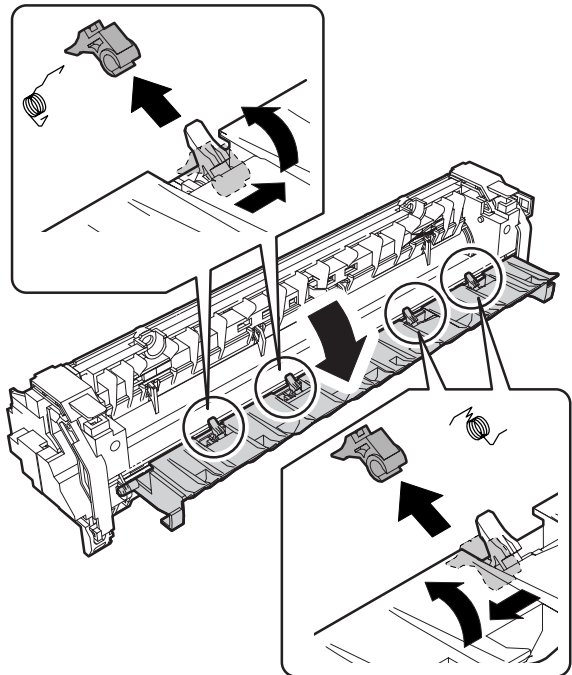
### (2) Thermistor



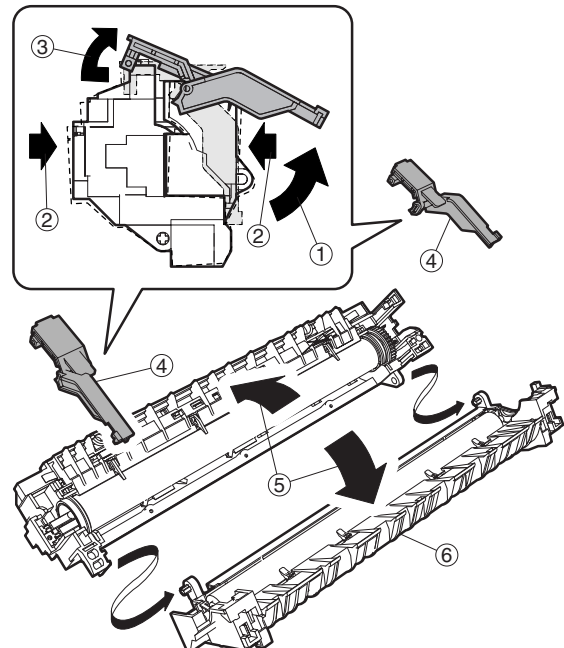
### (3) Paper guide

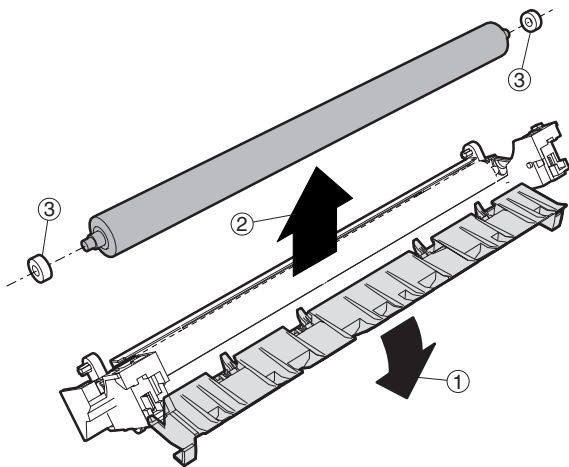


### (4) Fusing Separation Pawl (lower)

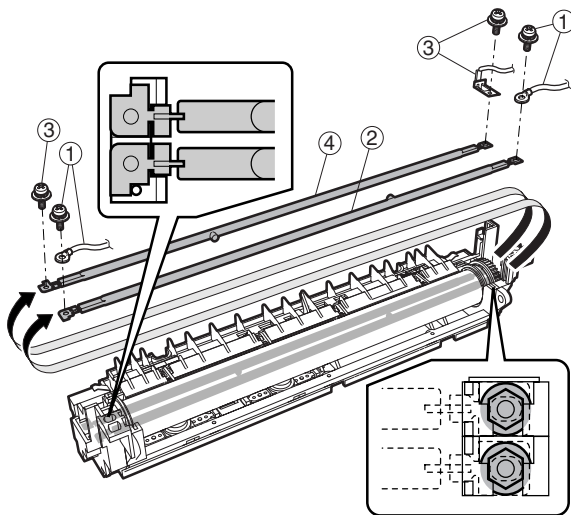


### (5) Lower heat roller

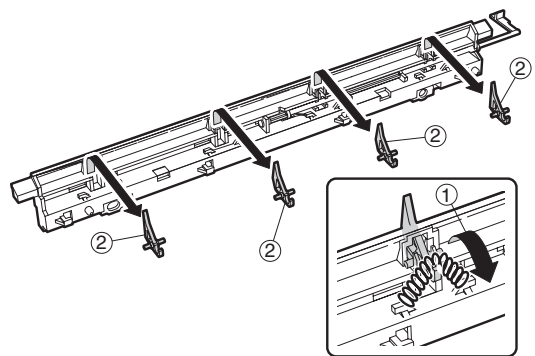
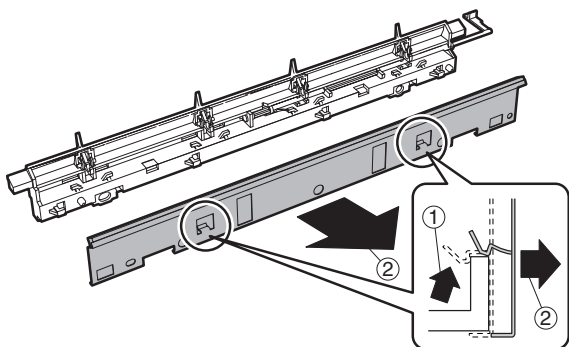
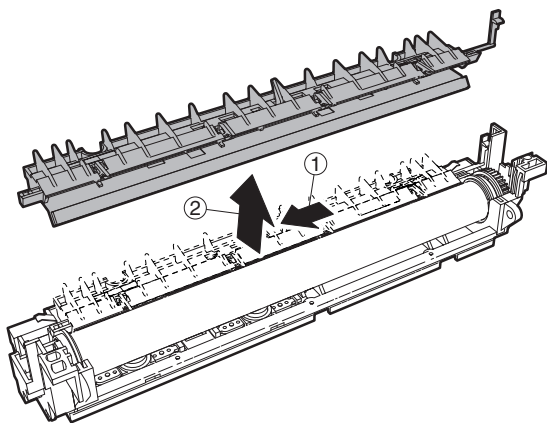




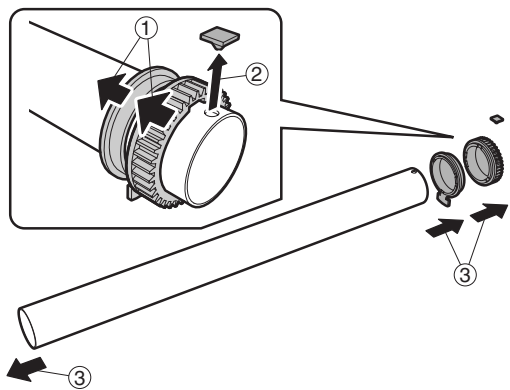
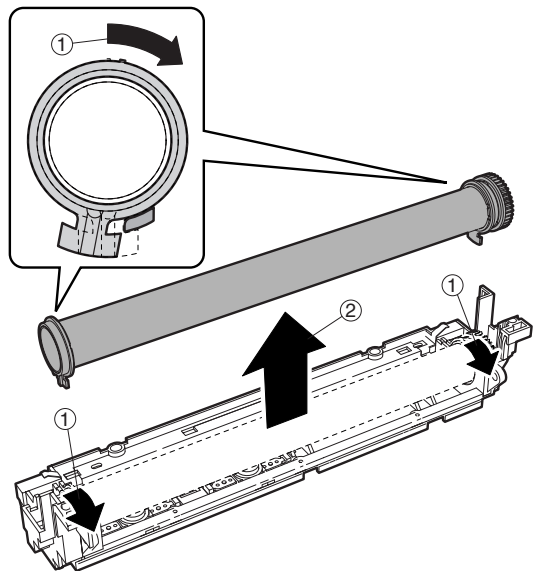
(6) Heater lamp



(7) Fusing Separation Pawl (upper)

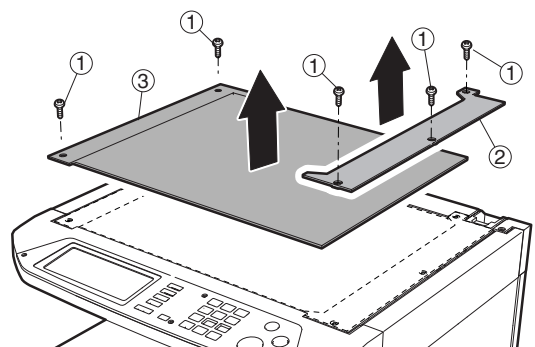


(8) Upper heat roller

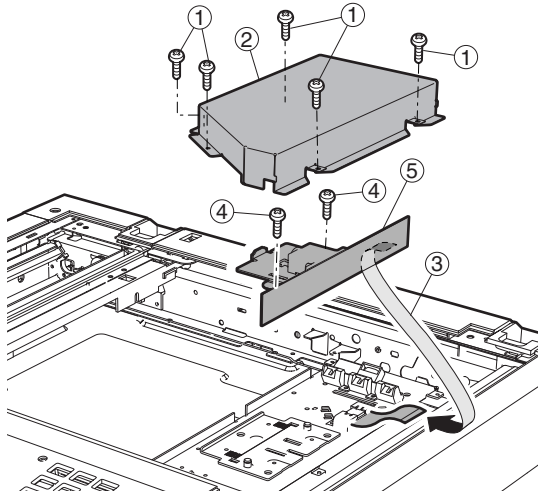


## D. Optical section

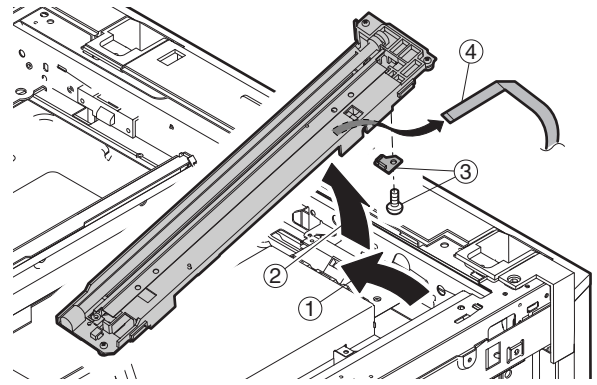
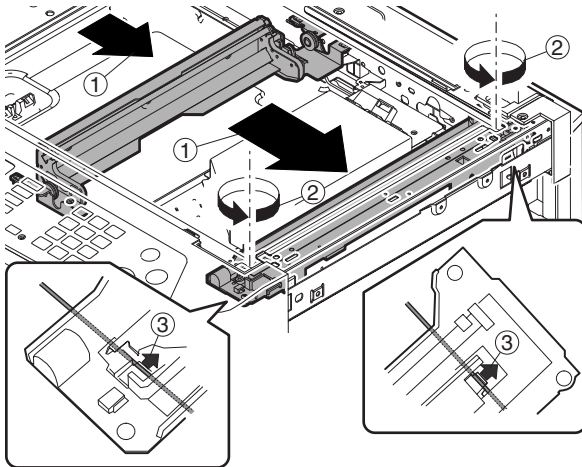
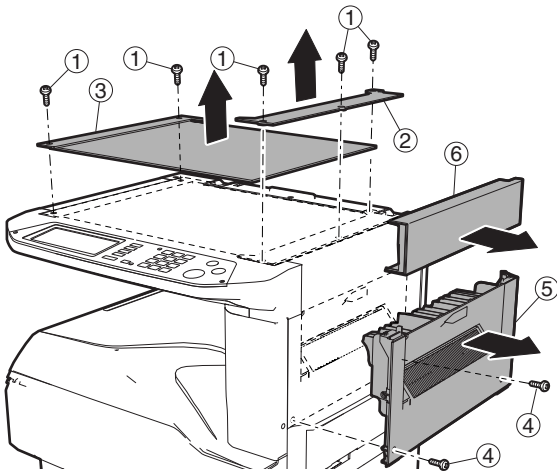
(1) CCD unit



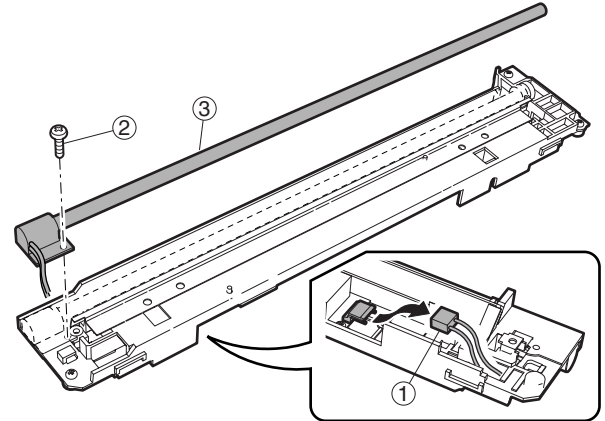




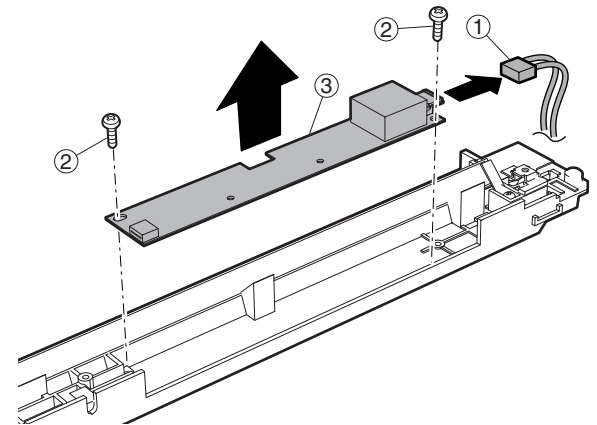
## (2) Lamp unit



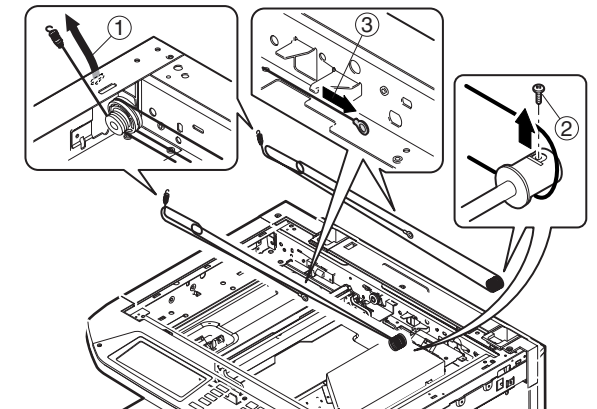
## a. Lamp

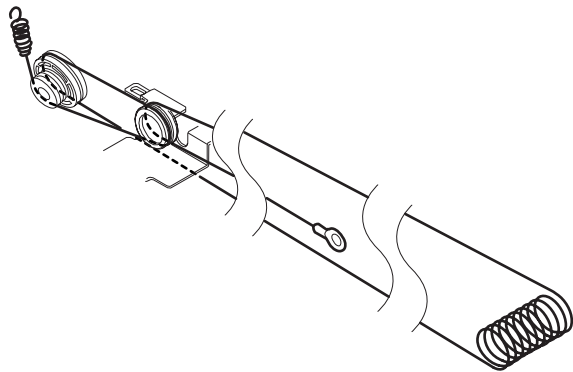


## b. PWB

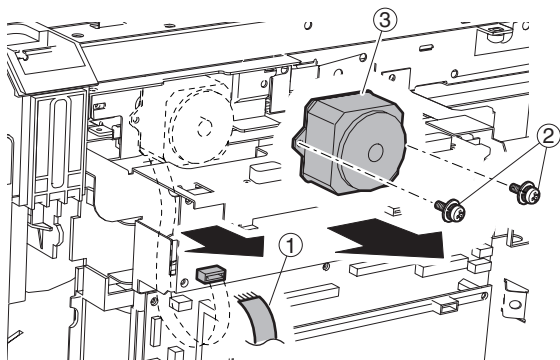


## c. Wire

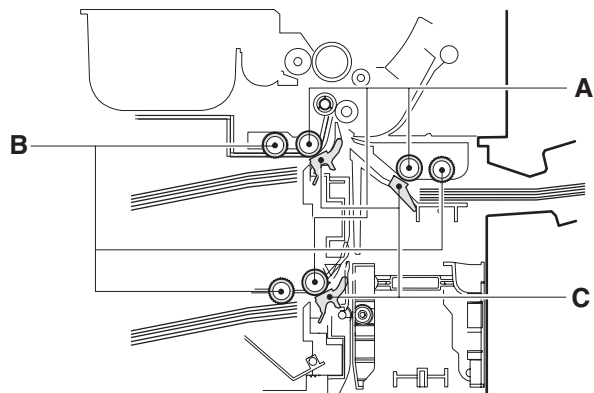




d. Mirror motor

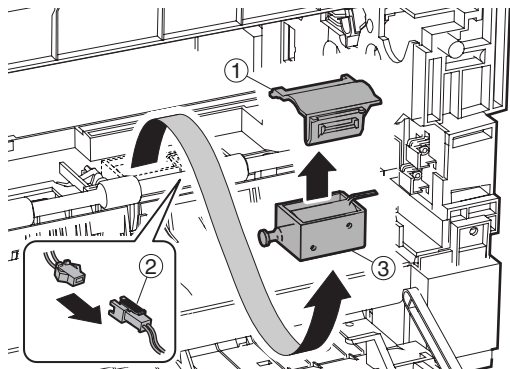


E. Paper feed section

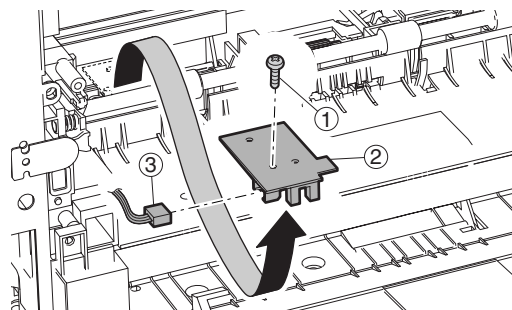


A	Paper feed roller
B	Pickup roller
C	Separation sheet

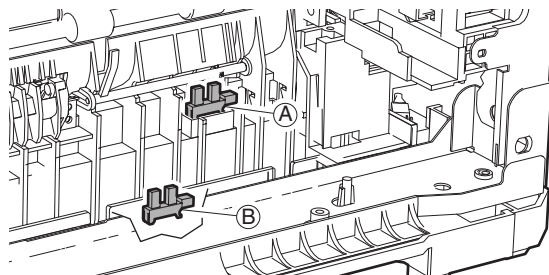
(1) Paper feed solenoid



(2) Cassette sensor PWB

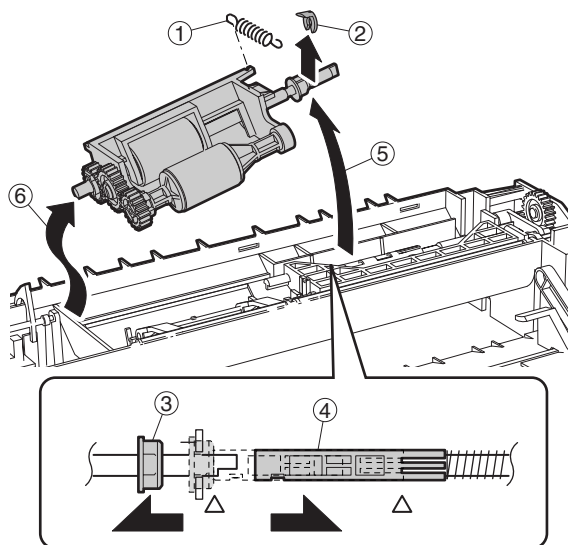
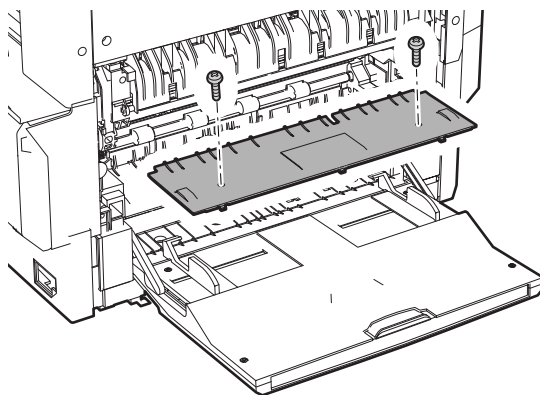


(3) Manual P-in sensor/Manual empty sensor

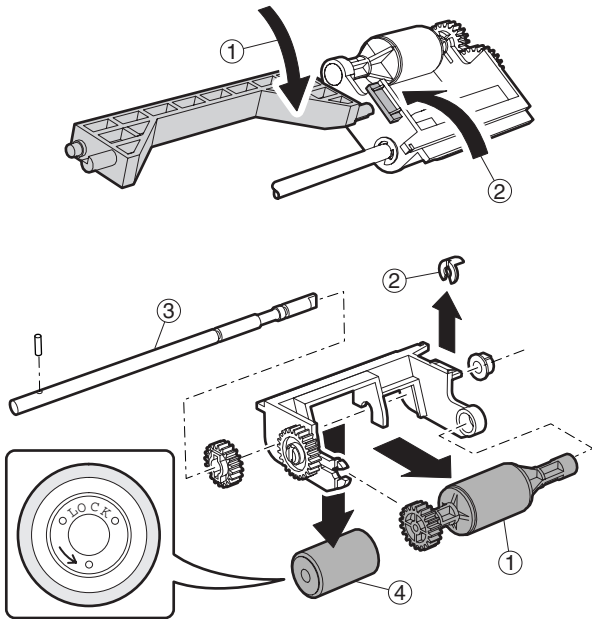


(4) Multi manual paper feed

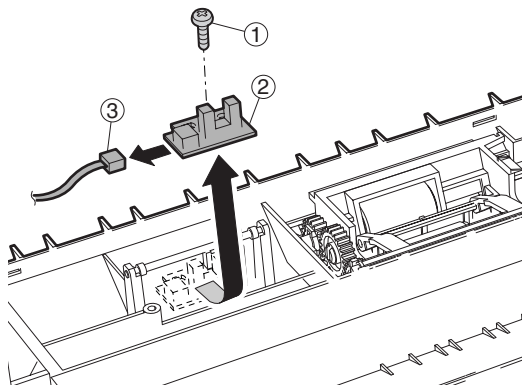
a. Paper feed roller/pickup roller



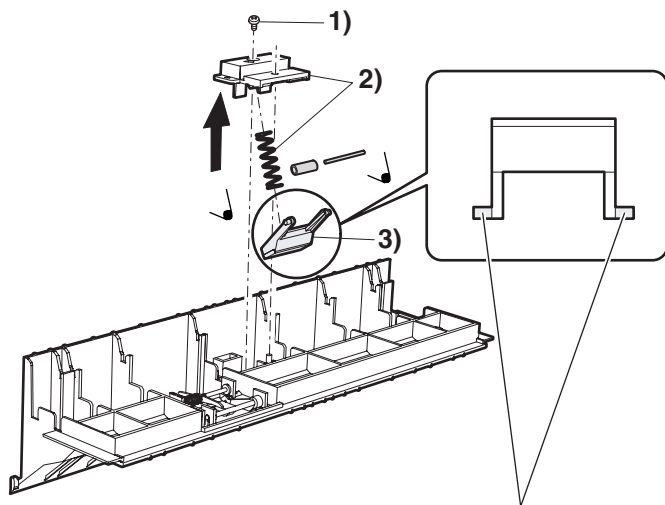
Installation\* Install so that the cam transmit arm (1) comes under the roller arm (2).



**b. Reverse sensor**

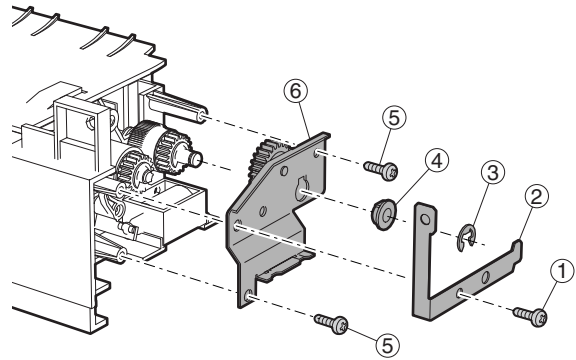


**c. Separation sheet**

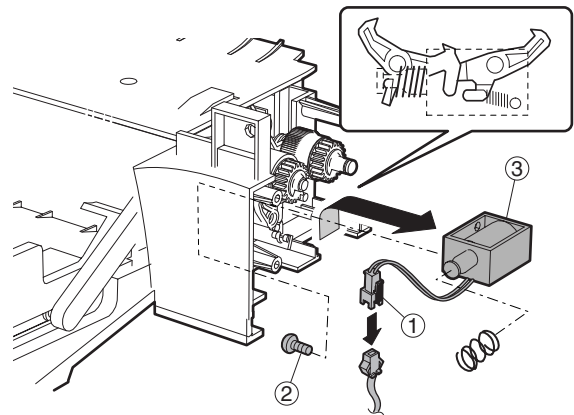


\* Slightly apply grease GP501MR (UKOG-0012QSZZ) around the axis. One rice grain for each.

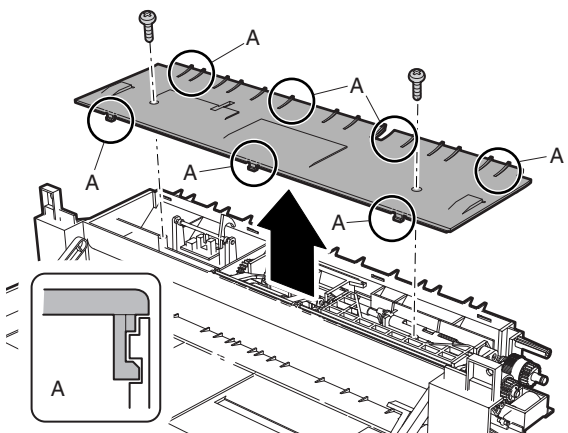
**d. Clutch/solenoid**  
(Clutch)

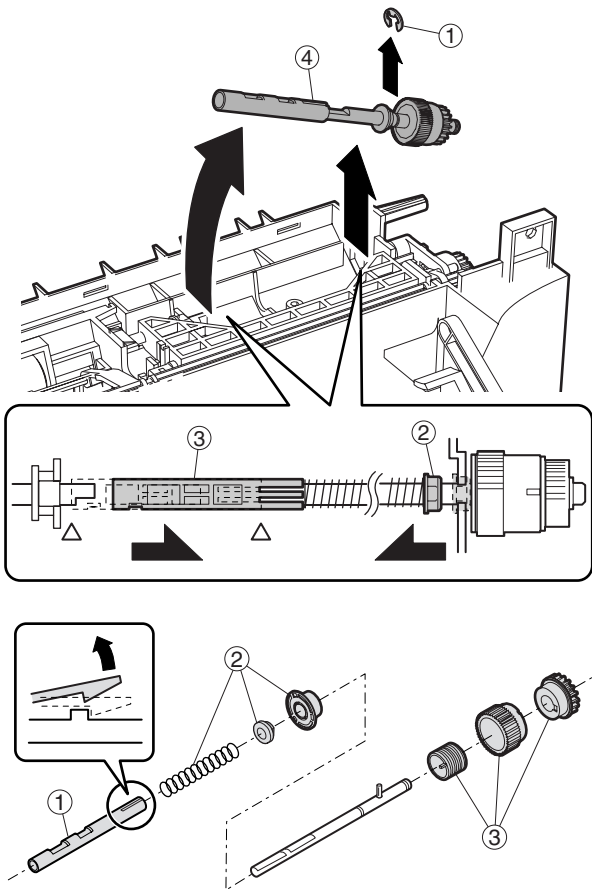


(Solenoid)

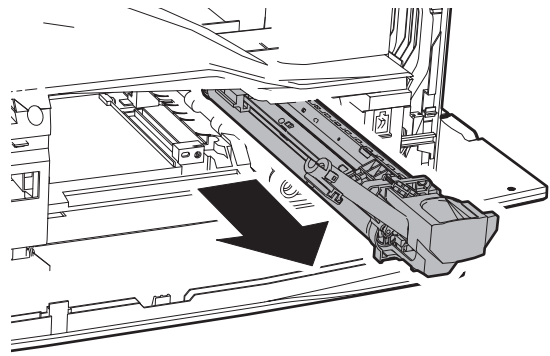
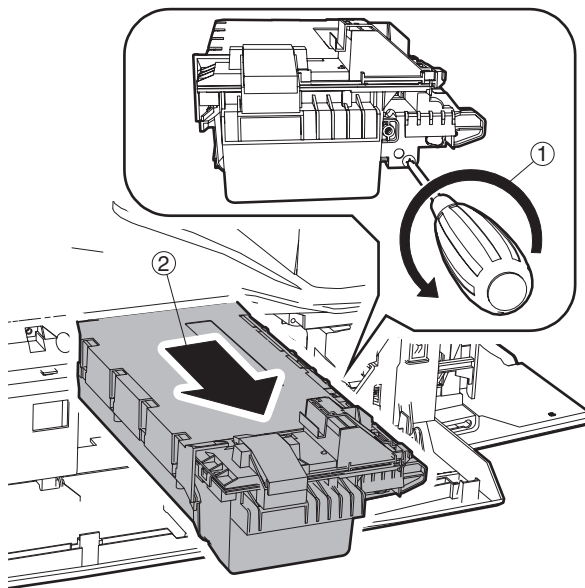


(Clutch)

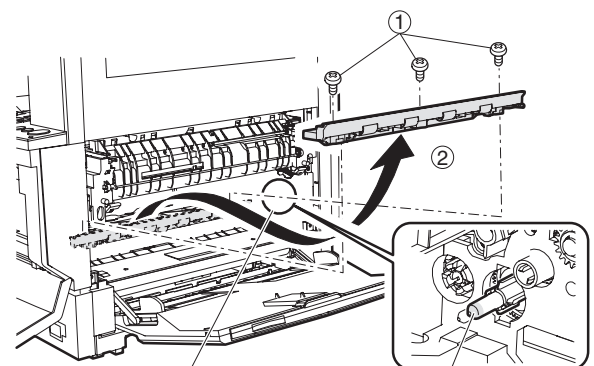
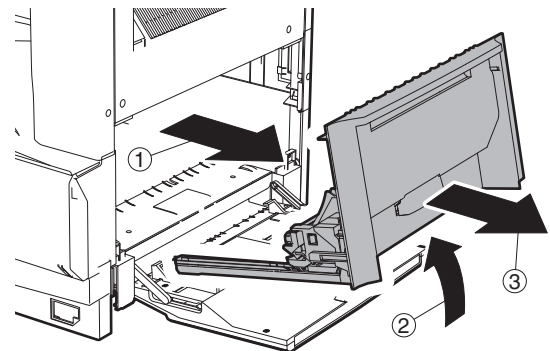
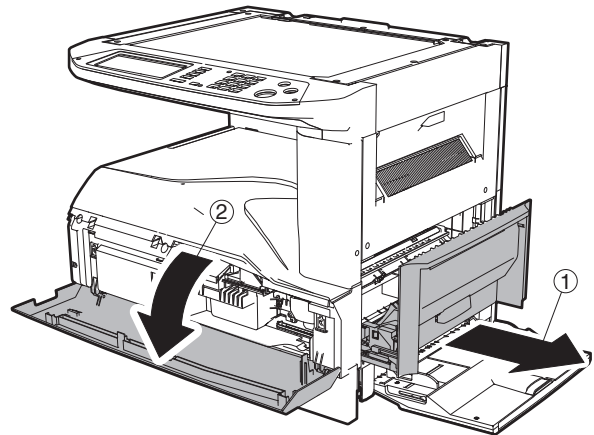




**(5) Upper 500 sheets tray paper feed**  
**a. Paper feed roller/pickup roller**



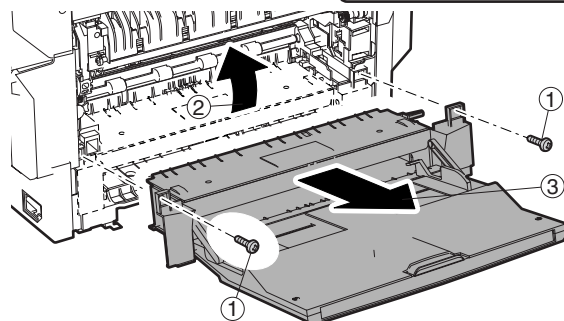
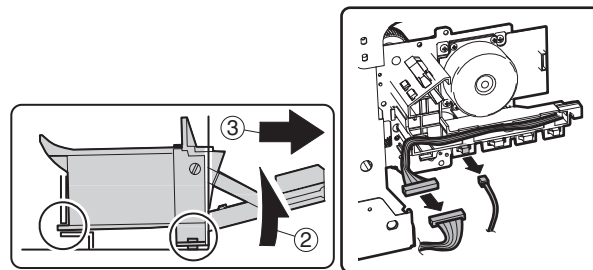
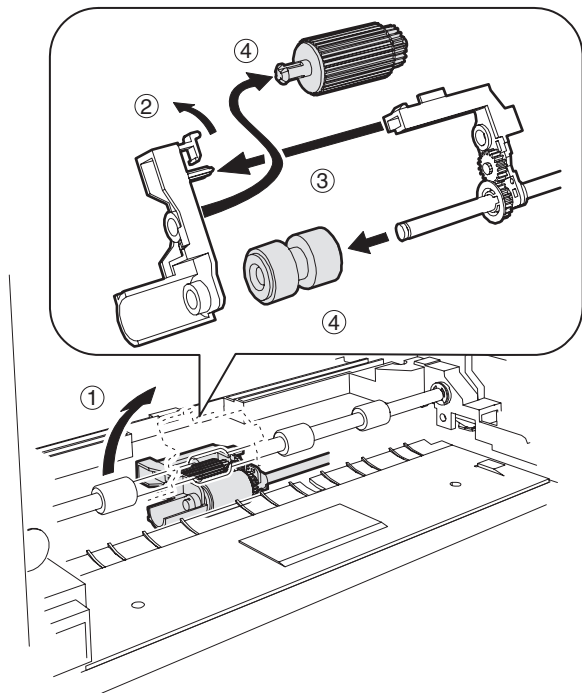
Note: With the toner cartridge installed, do not tilt or shake the developer cartridge.



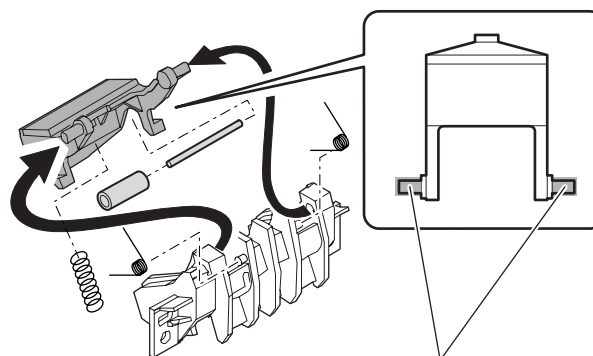
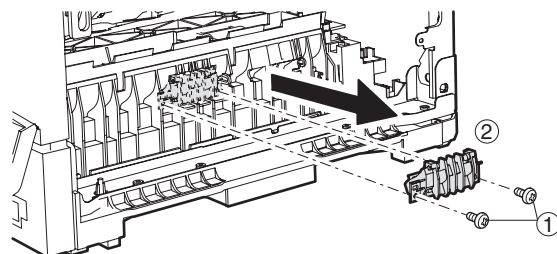
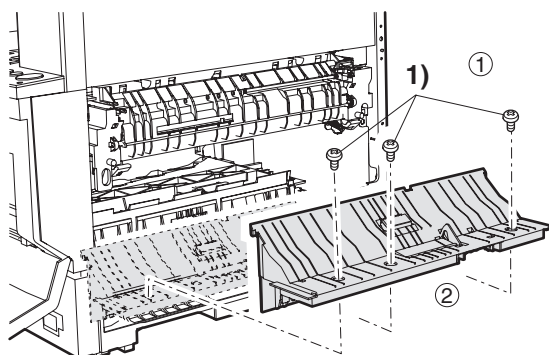
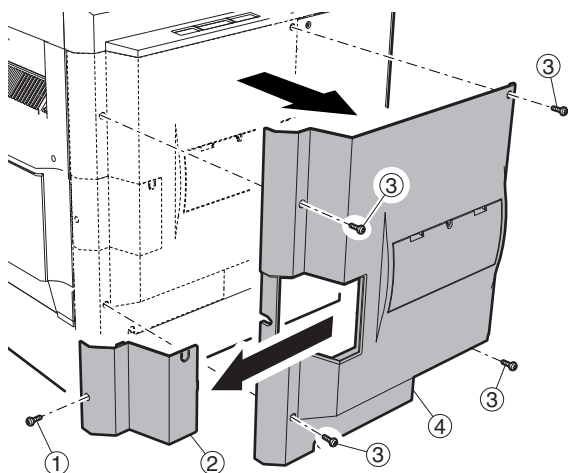
\* When replacing, be careful not to adhere conduction grease (black) to the drive section.

Slightly apply grease GE676 (UKOG-0013QSZZ) to the drum boss.





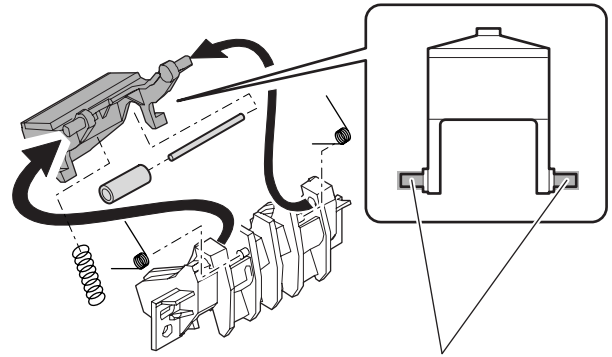
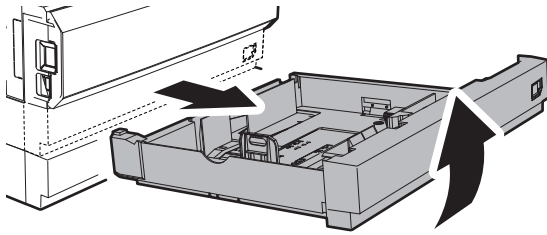
#### b. Separation sheet



\* Slightly apply grease GP501MR (UKOG-0012QSZZ) around the axis. One rice grain for each.  
Grease should not come out when assembling.

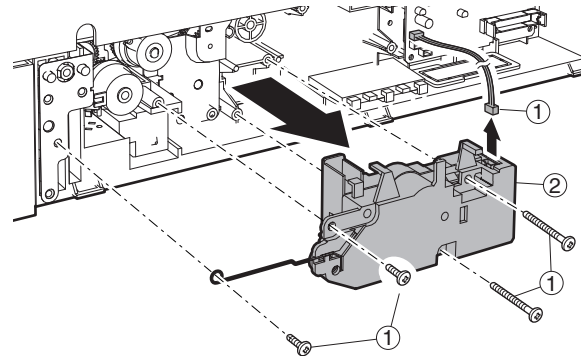
### (3) Lower 500 sheets tray paper feed

#### a. Paper feed roller/pickup roller

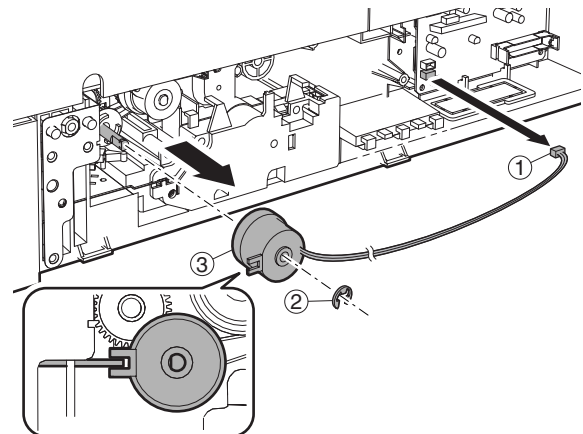


\* Slightly apply grease GP501MR (UKOG-0012QSZZ) around the axis. One rice grain for each.  
Grease should not come out when assembling.

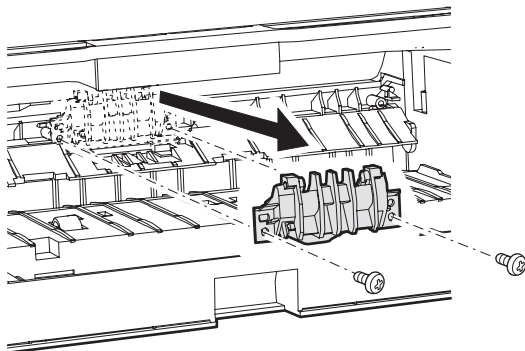
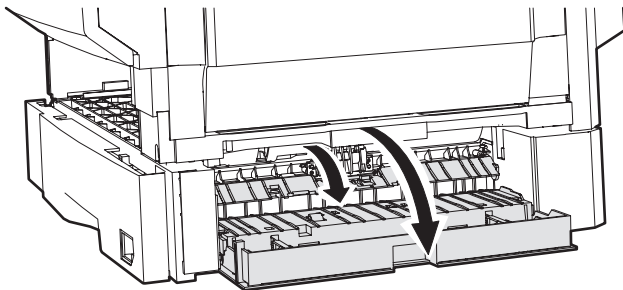
#### c. Lift up unit



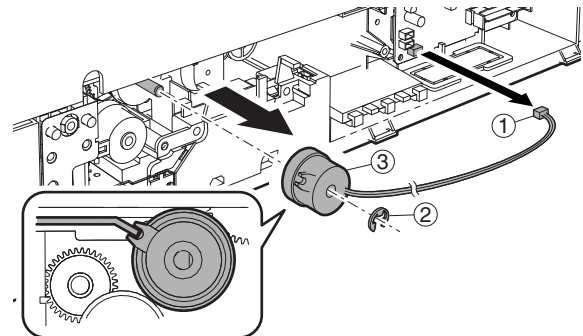
#### d. Transport clutch



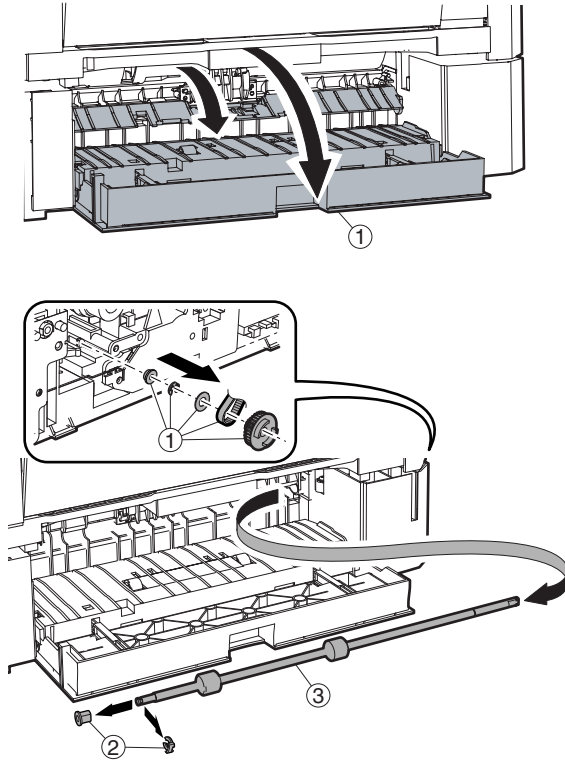
#### b. Separation sheet



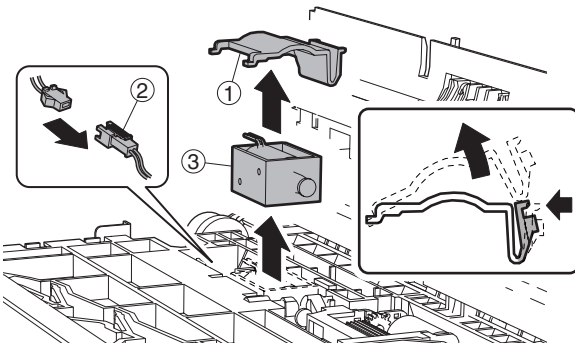
#### e. Paper feed clutch



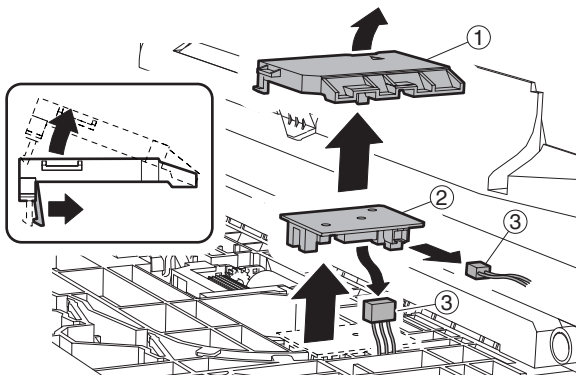
#### f. Transport clutch



#### g. Solenoid

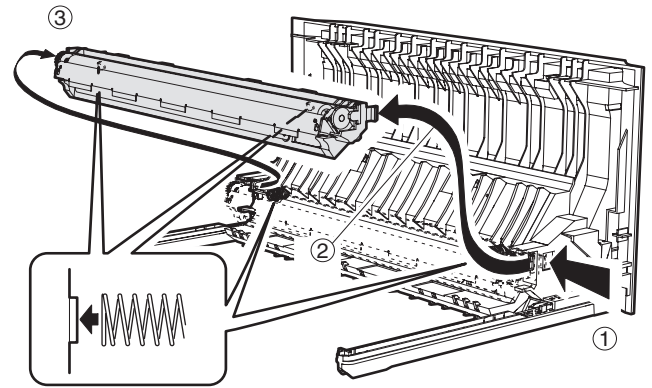


#### h. Sensor PWB



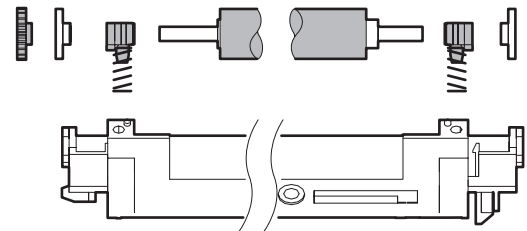
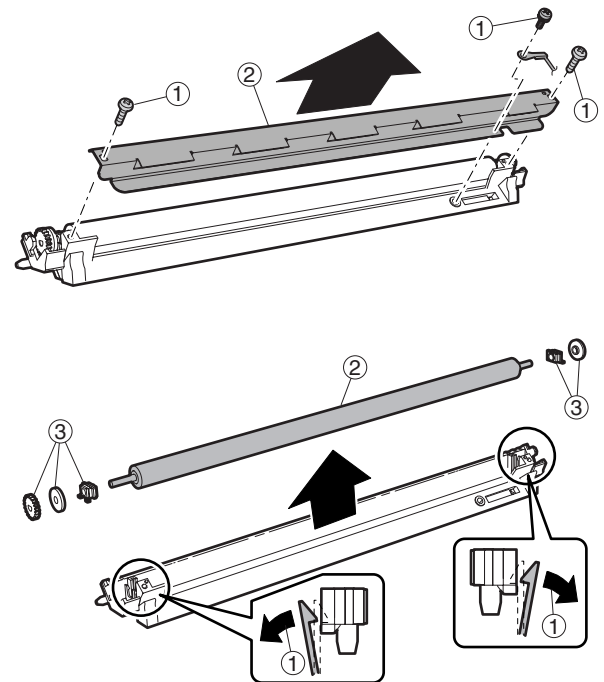
#### F. Side door unit

##### (1) Transport roller unit

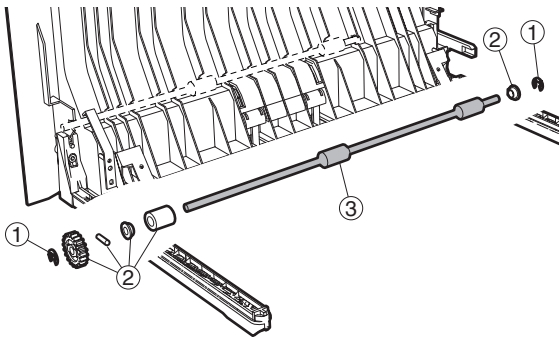
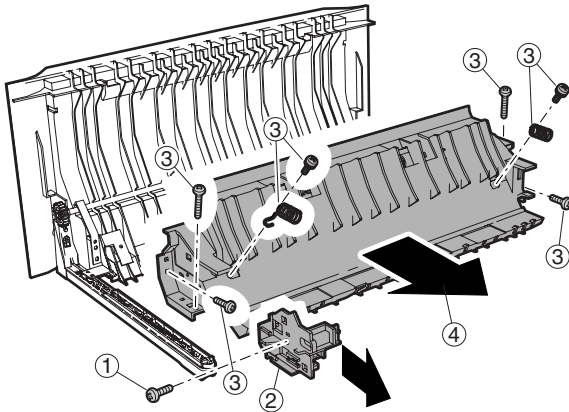


\* Check that two springs are securely inserted into the transfer roller unit bosses.

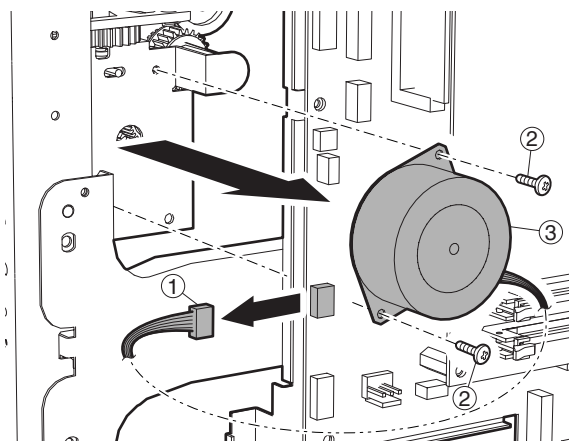
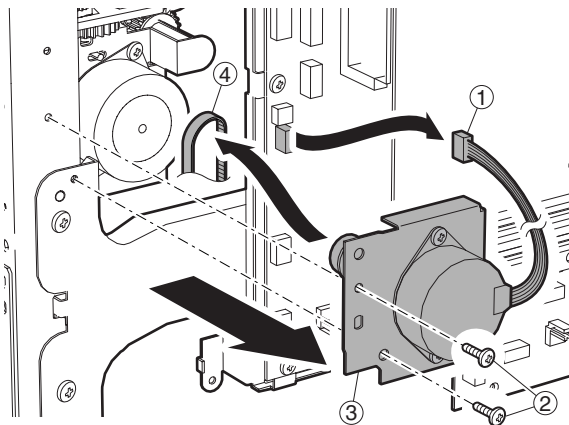
##### (2) Transport roller



### (3) DUP transport roller

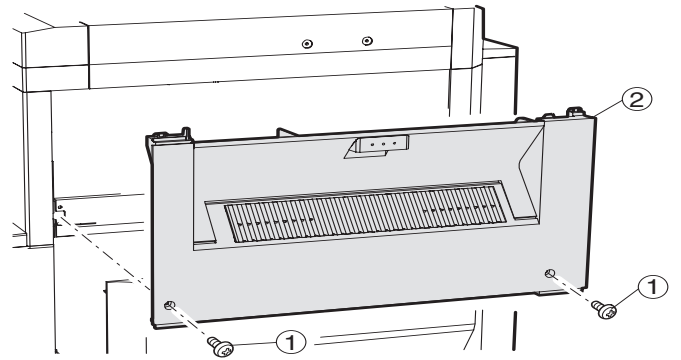


### (4) DUP motor

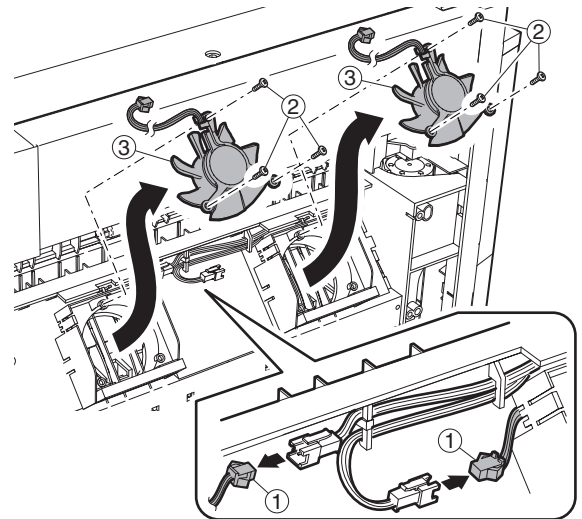


### G. 1st paper exit unit

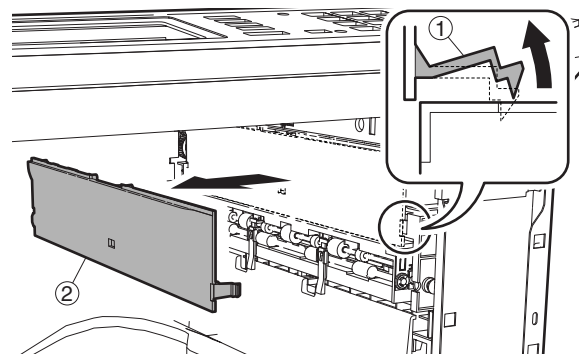
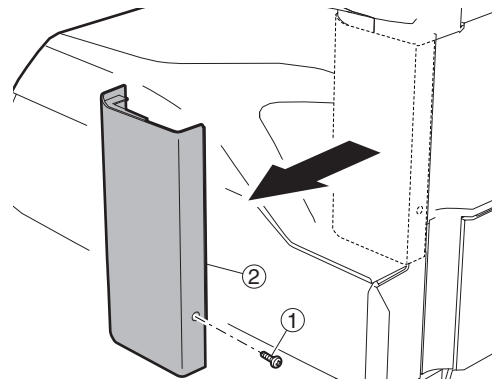
#### (1) Exit roller



#### (2) Cooling fan

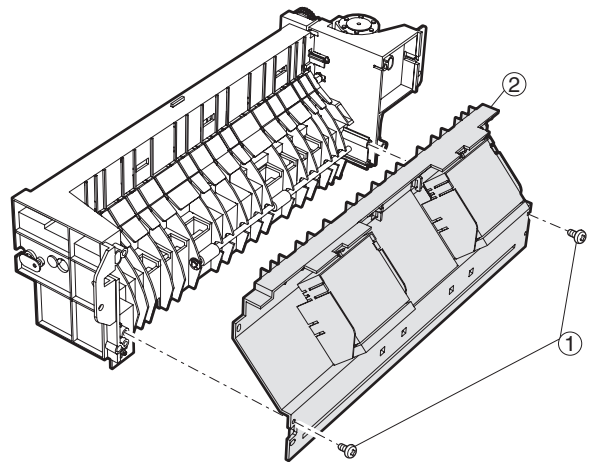
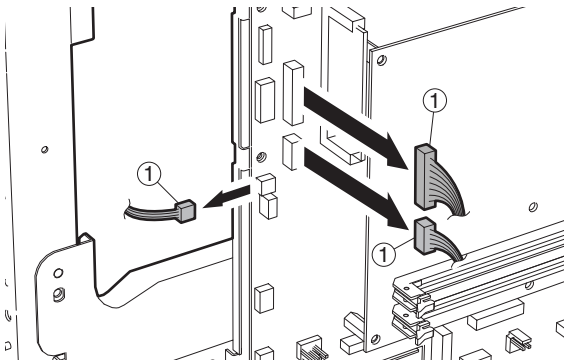


- Remove the front right cabinet.

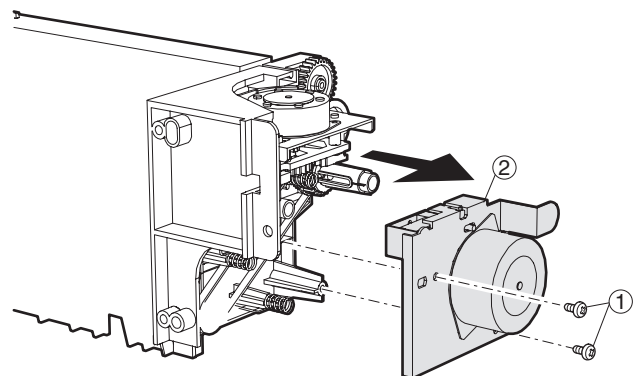
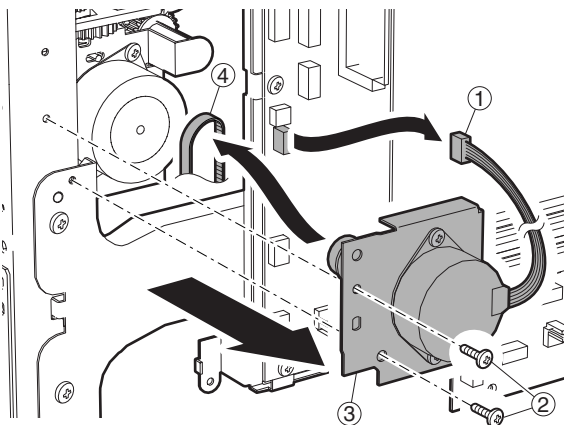




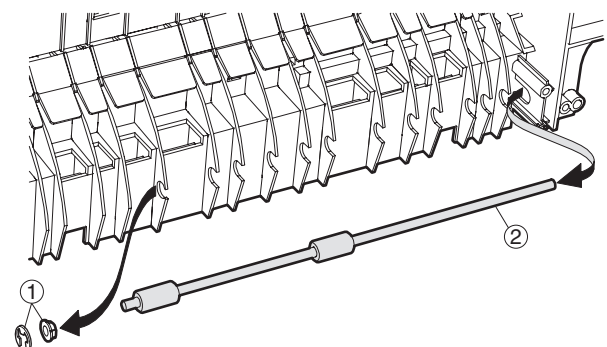
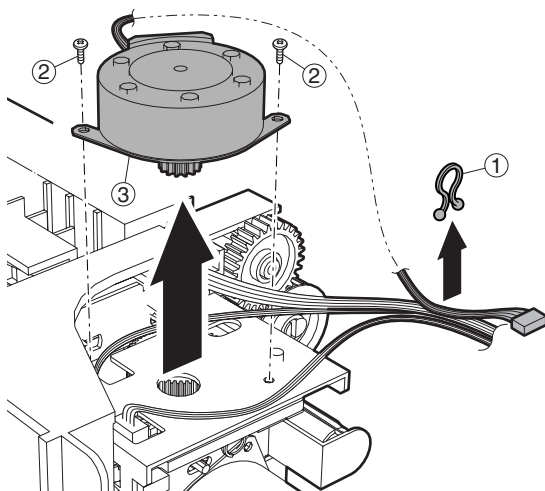
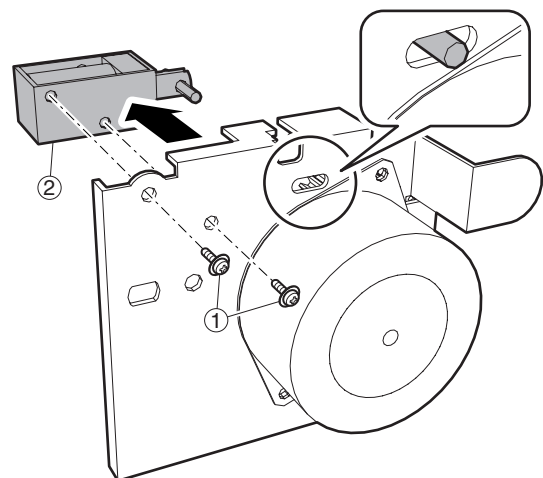
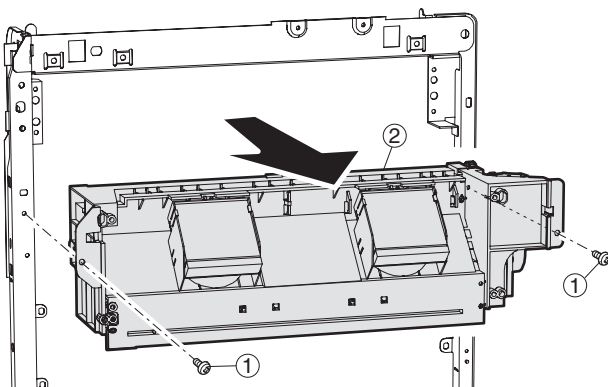
- Remove the MCU PWB section connector.

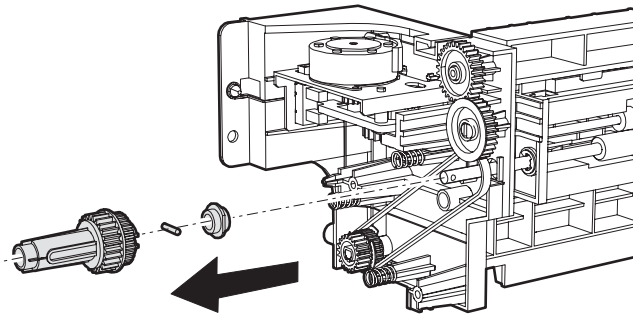


- Remove the DUP motor.

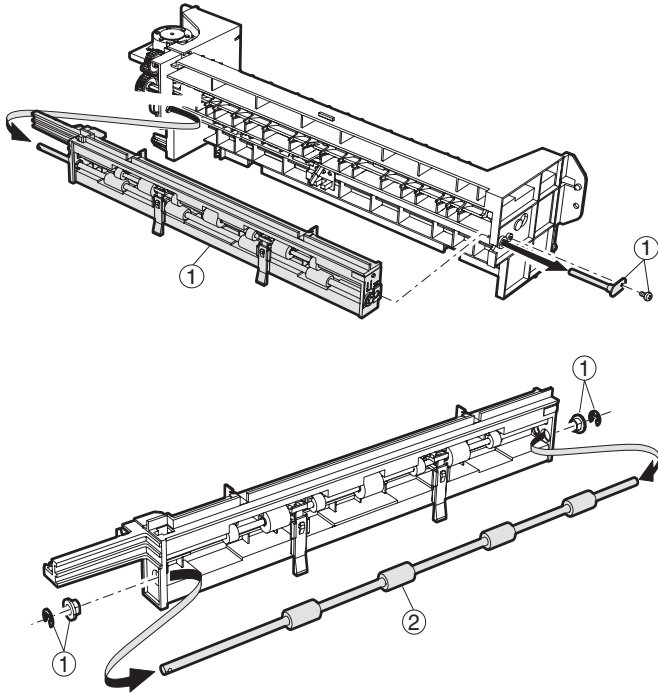


- Remove the delivery frame.

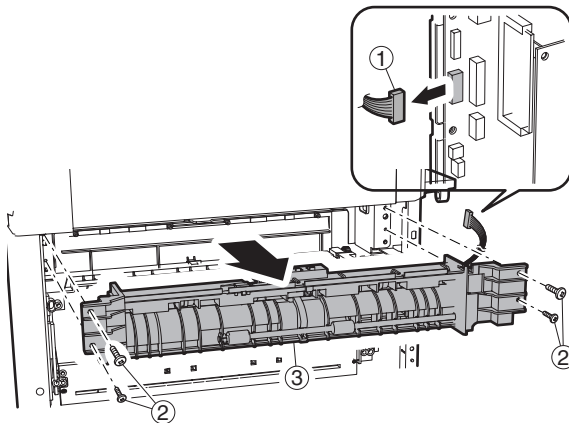




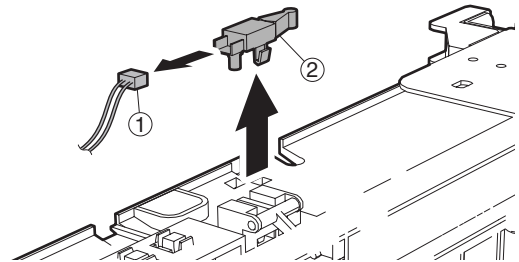
Note: Check to confirm that the solenoid shaft is in the gate bracket, and fix with the screw.



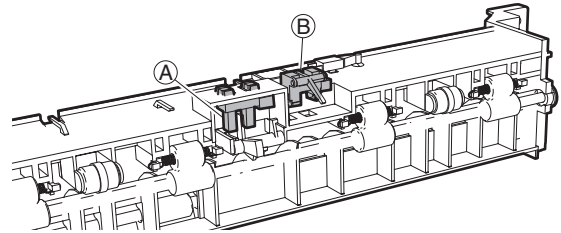
## H. 2nd paper exit unit



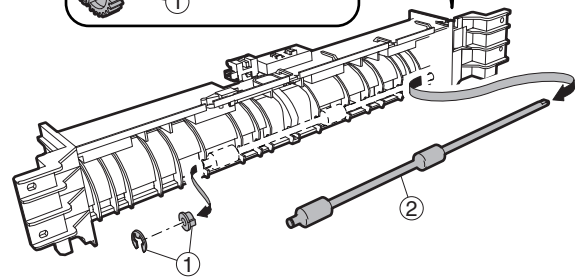
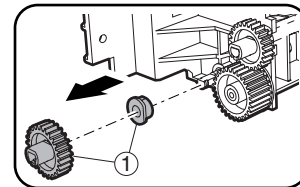
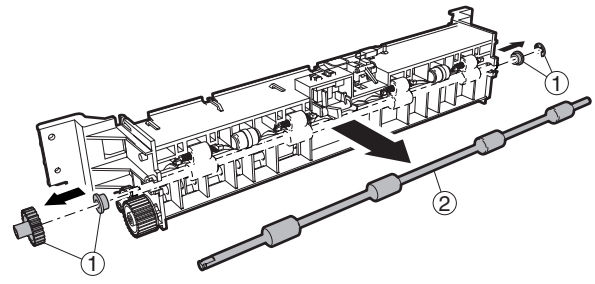
## (1) Switch



## (2) Sensor

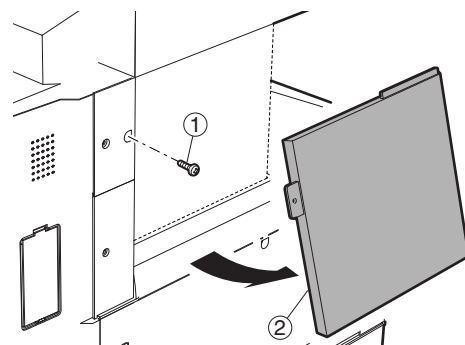


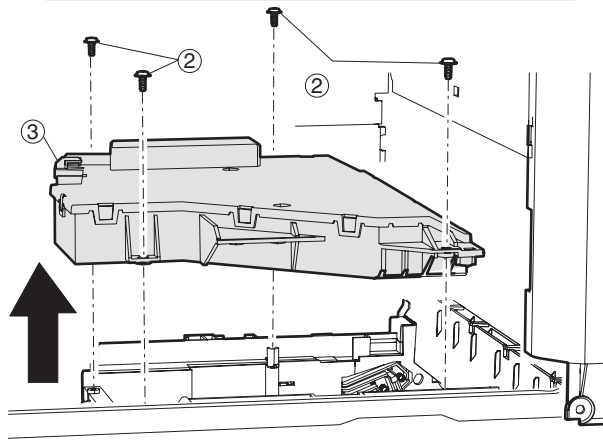
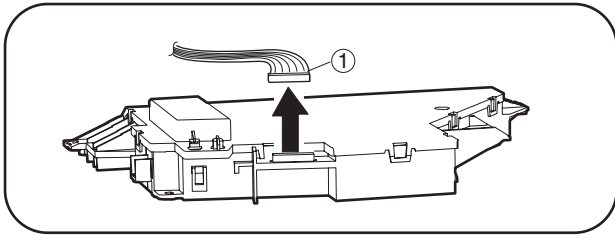
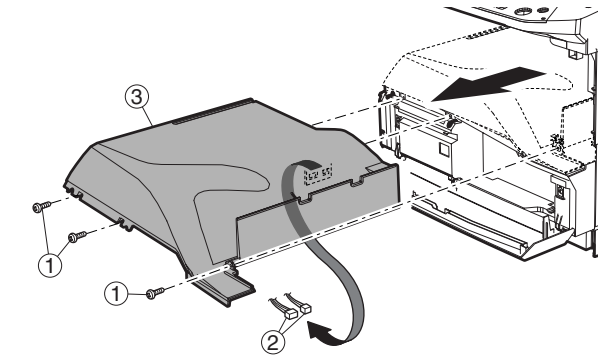
## (3) Roller



## I. Laser unit

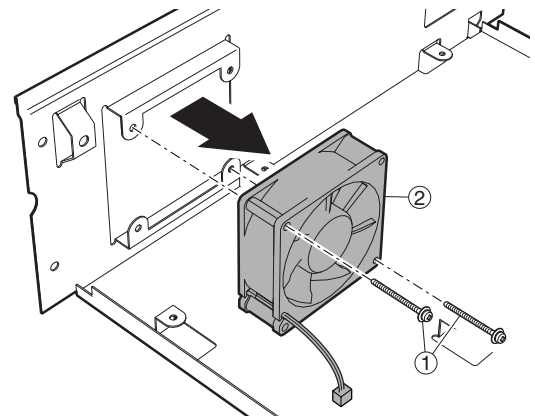
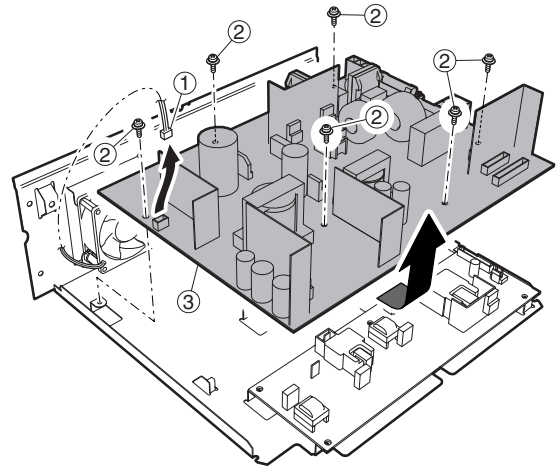
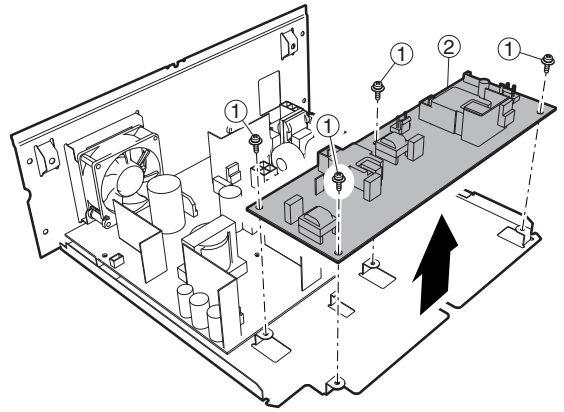
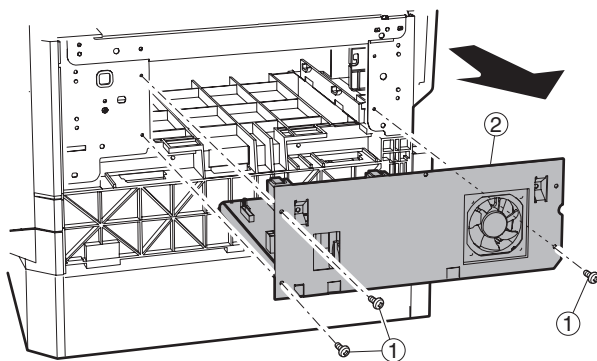
### (1) LSU





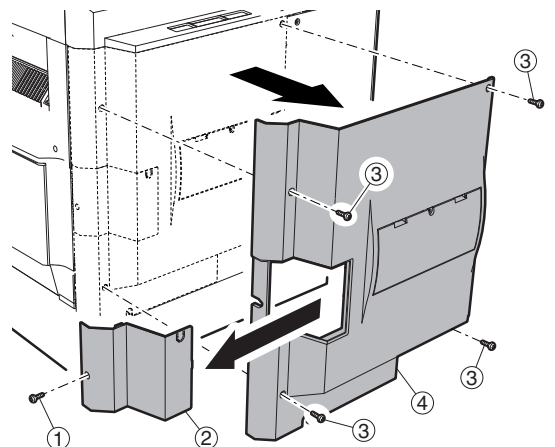
## J. Power unit

### (1) Power source

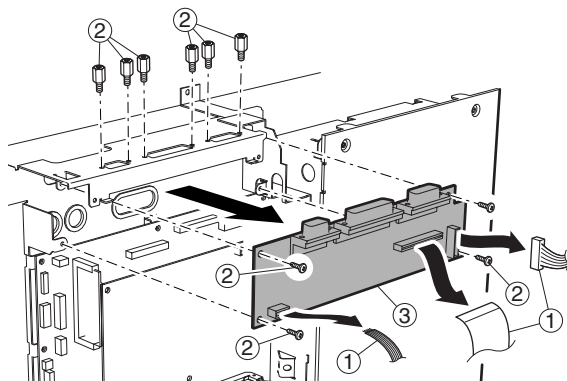


## K. PWB

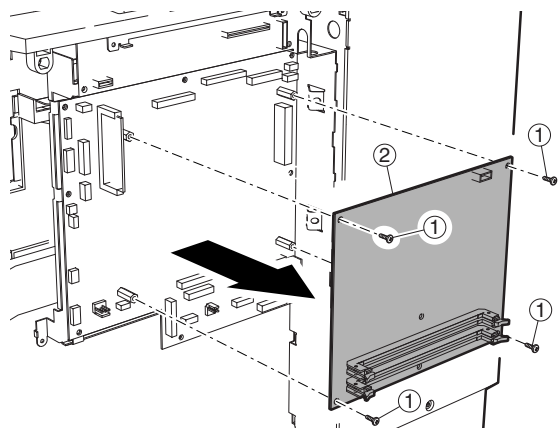
### (1) Option CN PWB



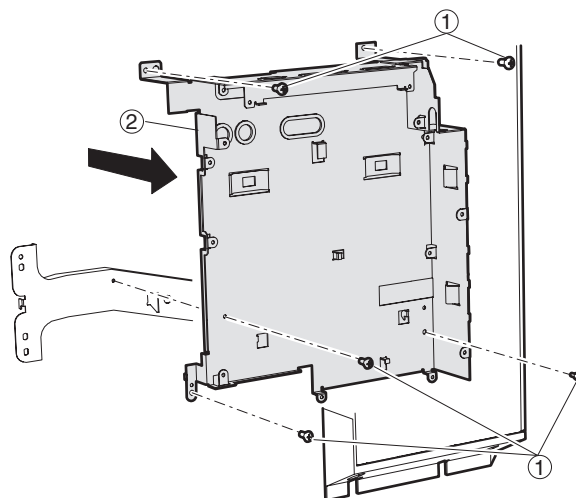
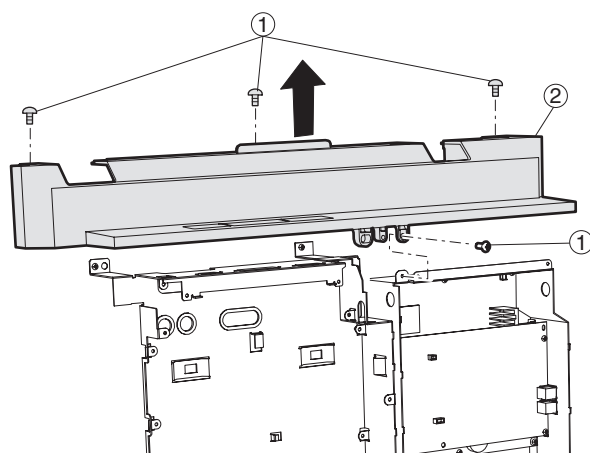
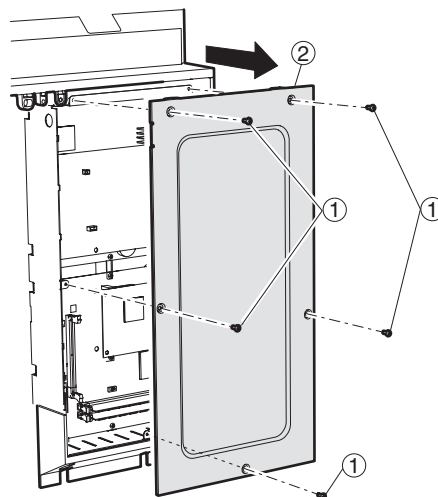
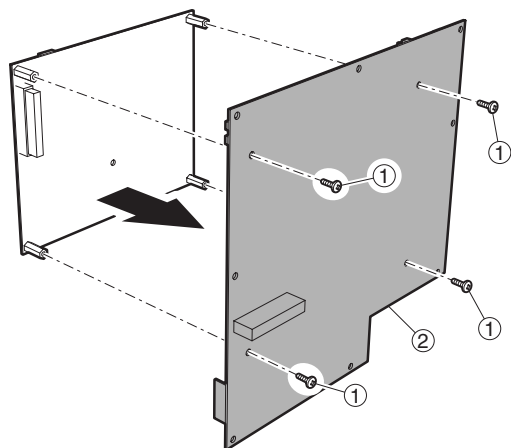
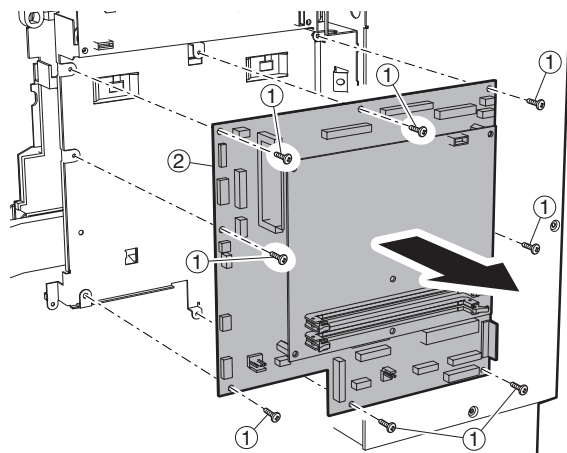
#### (4) Motherboard PWB



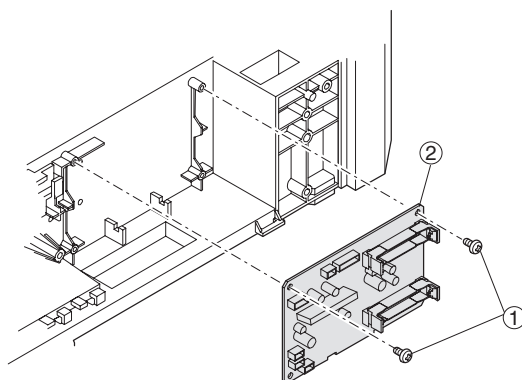
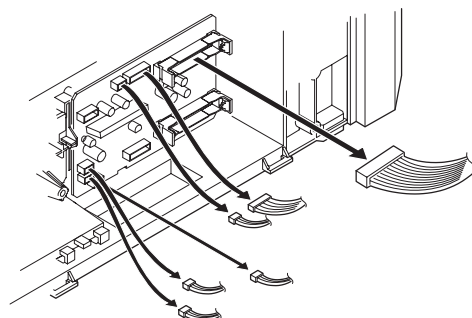
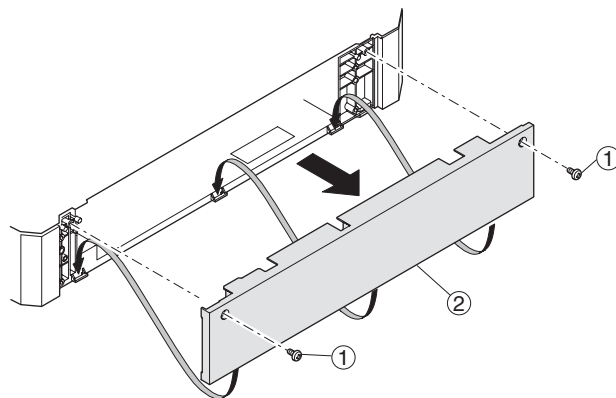
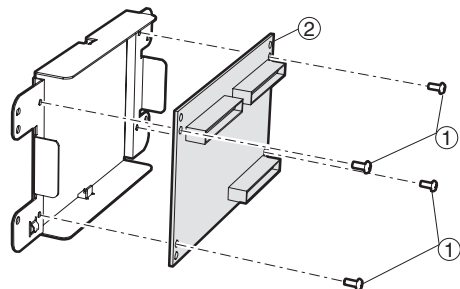
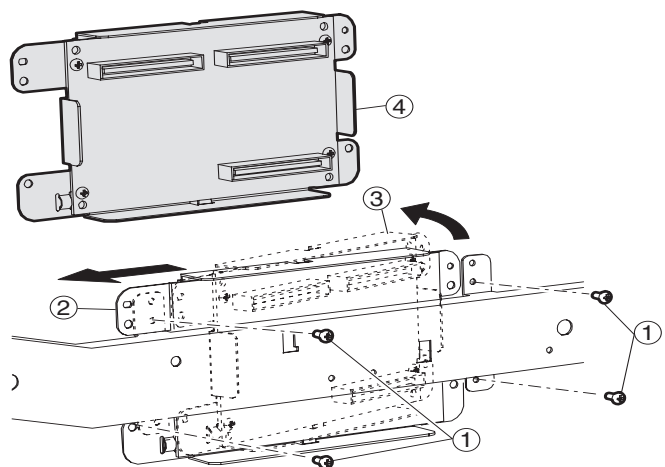
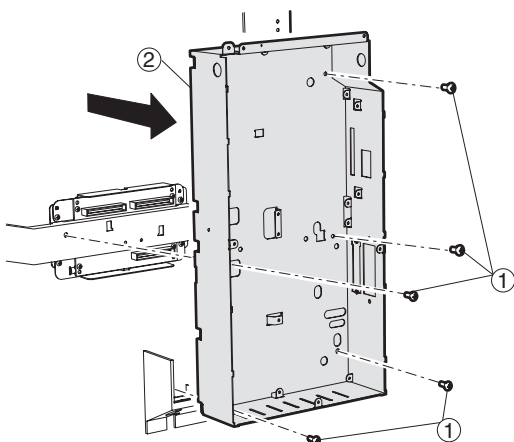
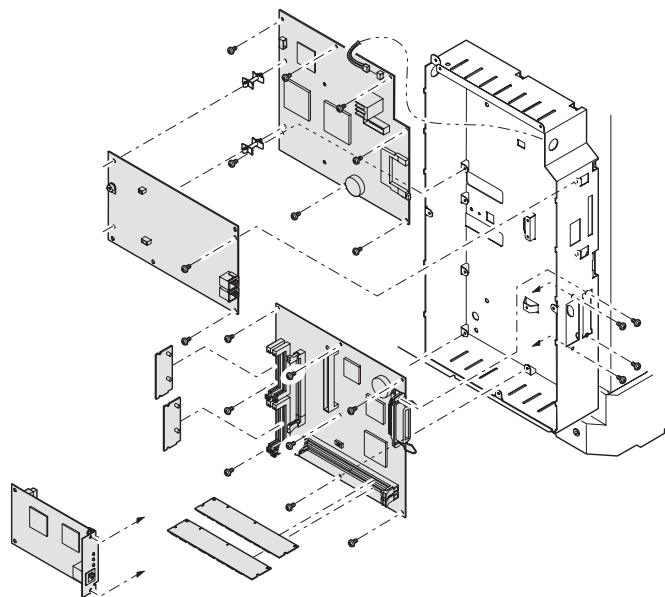
#### (2) IMC PWB



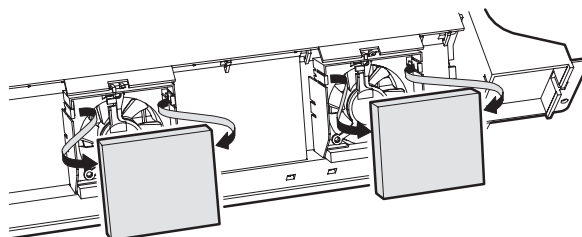
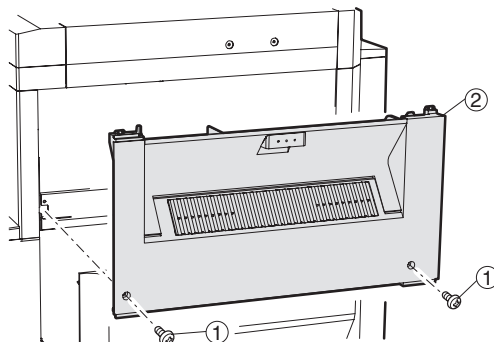
#### (3) MCU PWB



## (5) Second interface PWB

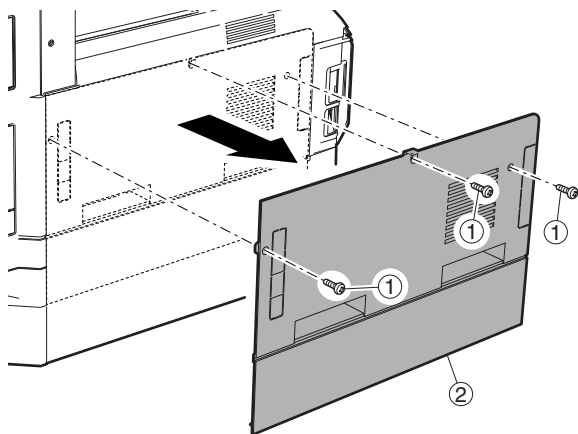


## L. Ozone filter



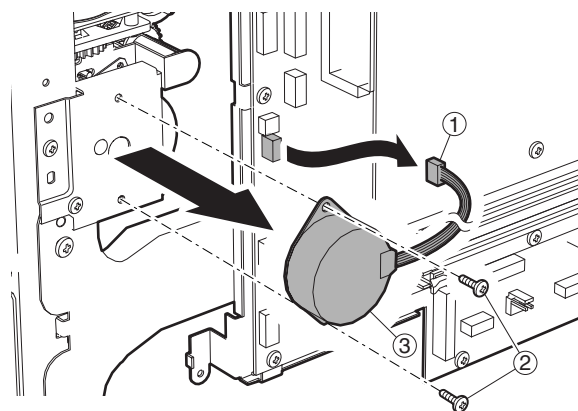
Note: Before removing the left cover, remove the No.1 cassette in advance.



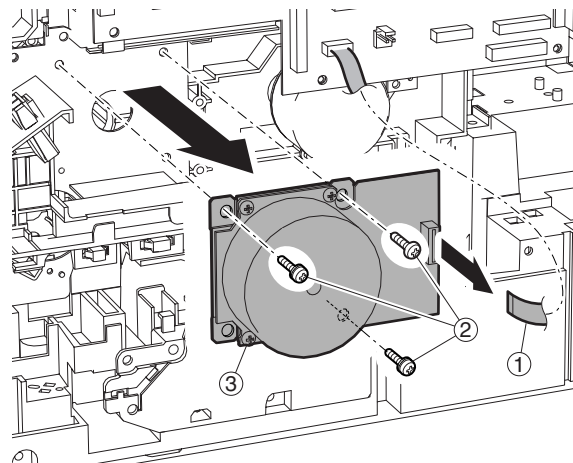


## M. Drive section

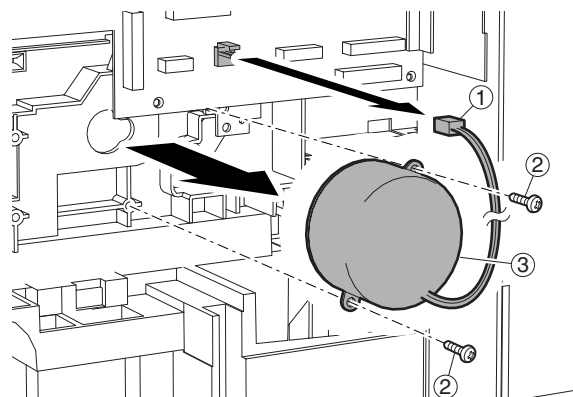
### (1) DUP reverse motor



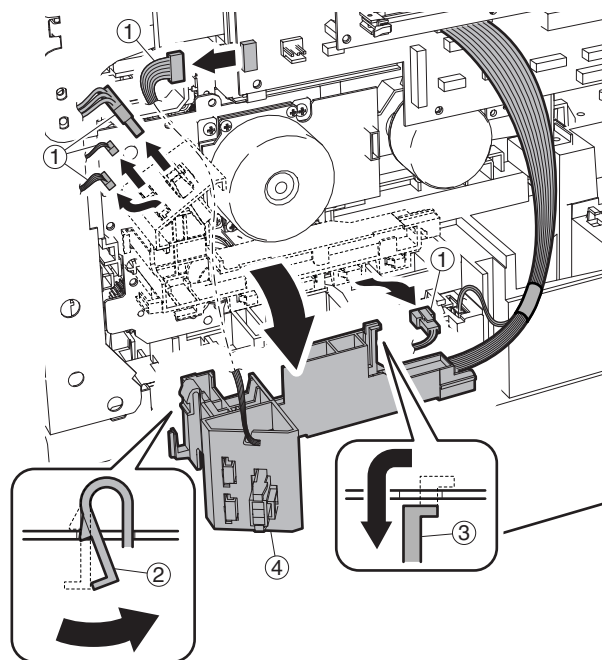
### (2) Main drive motor

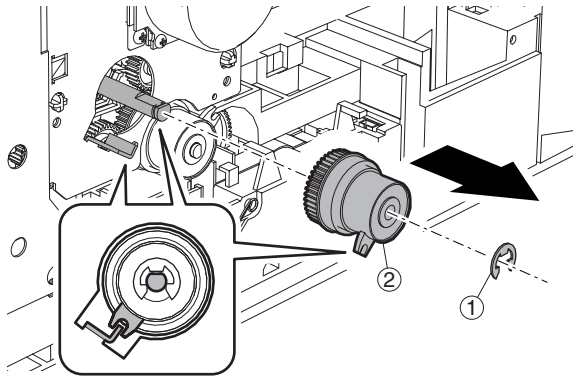


### (3) Toner motor

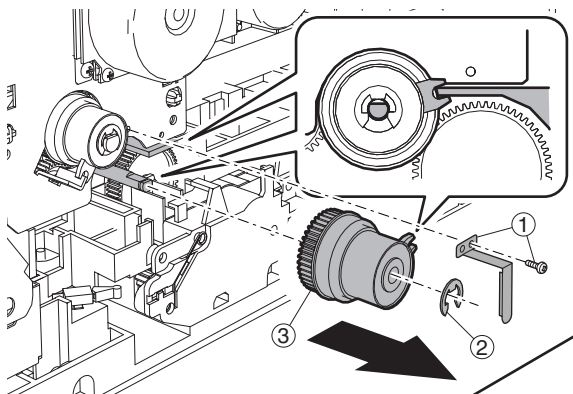
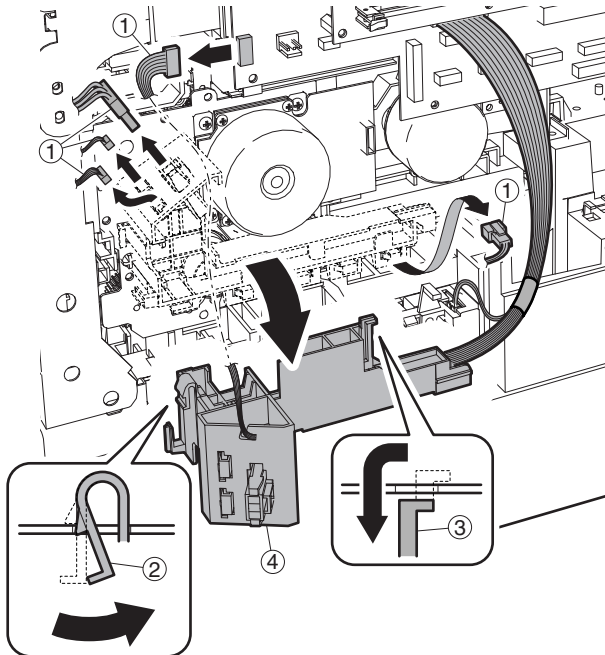


### (4) PS transport clutch

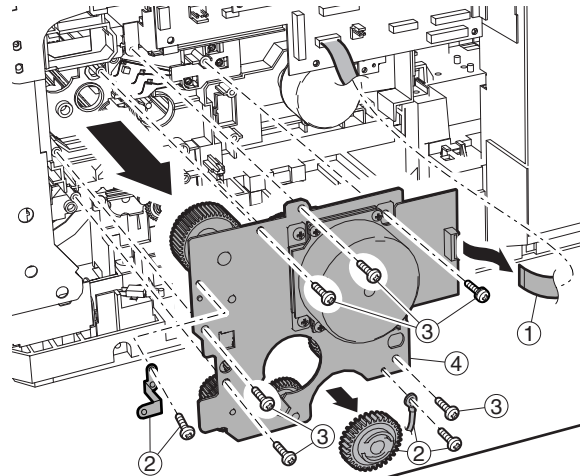




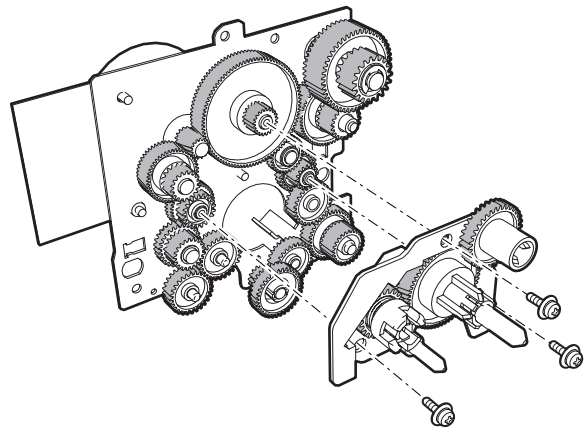
### (5) Paper feed clutch



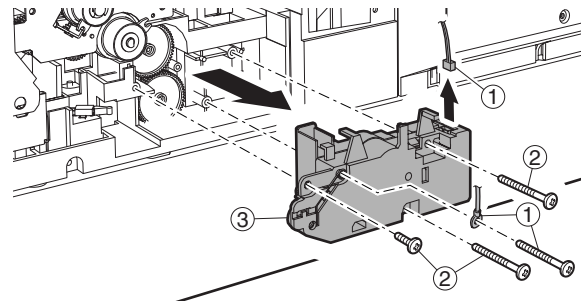
### (6) Drive unit

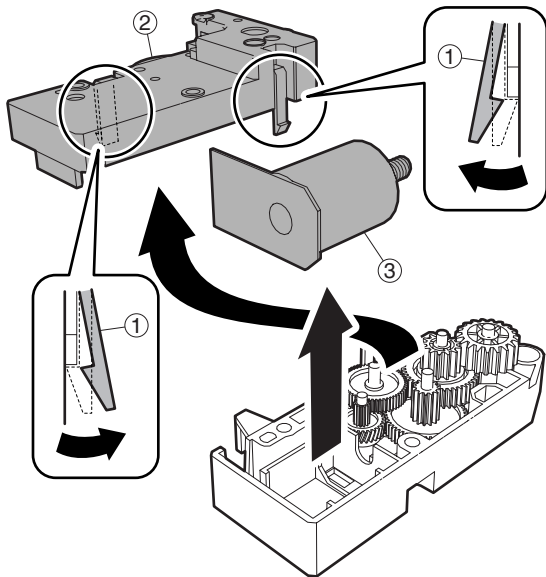


### Drive unit (Grease application part)



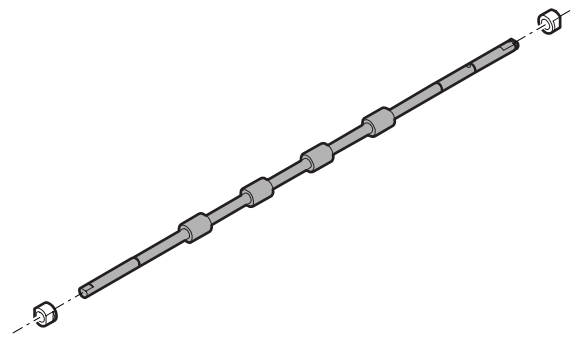
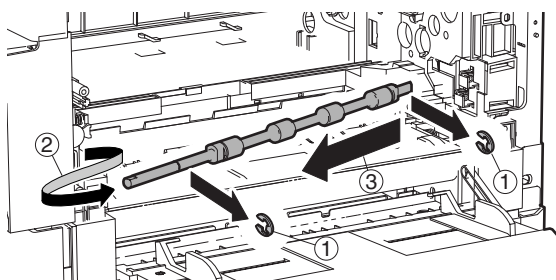
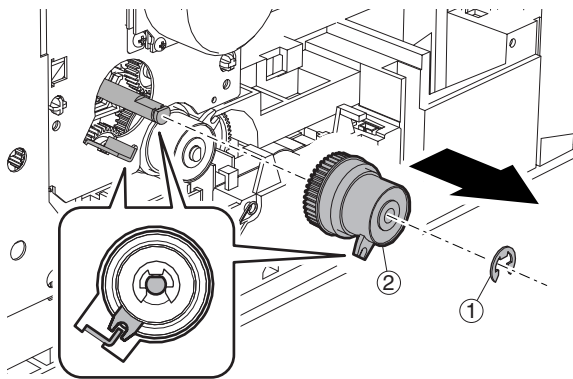
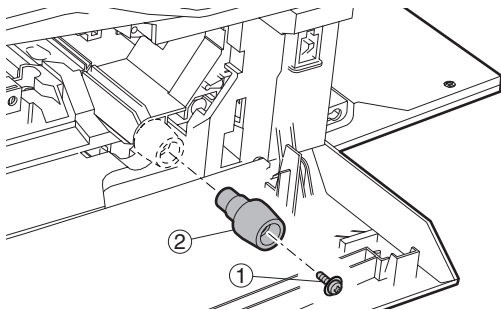
### (7) Lift up motor





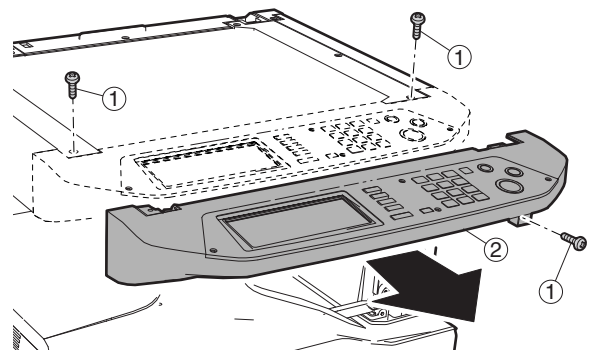
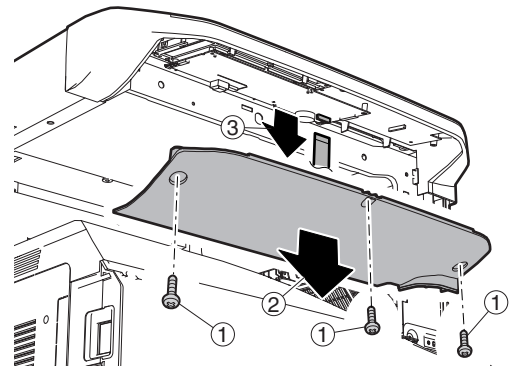
#### N. Transport section

##### (1) Transport roller

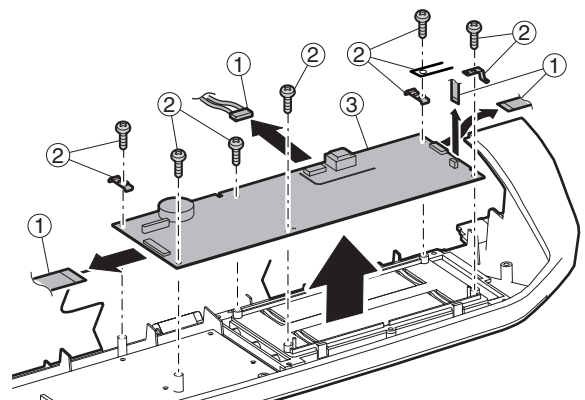


#### O. Operation section

##### (1) Operation section

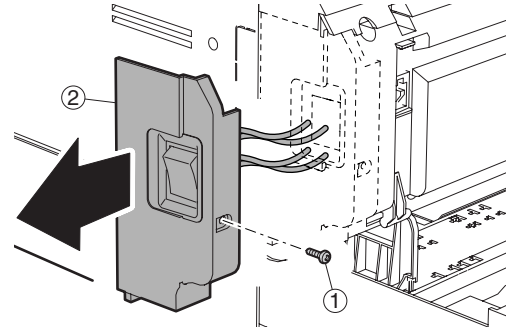
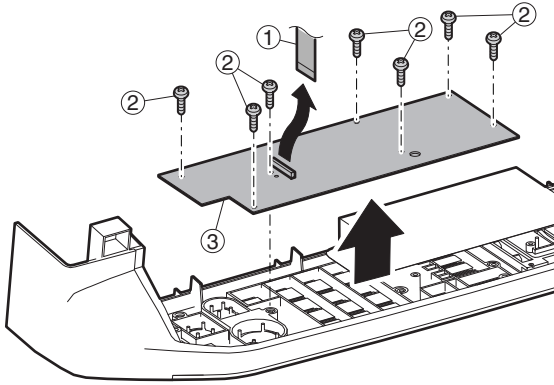


#### (2) OPU PWB

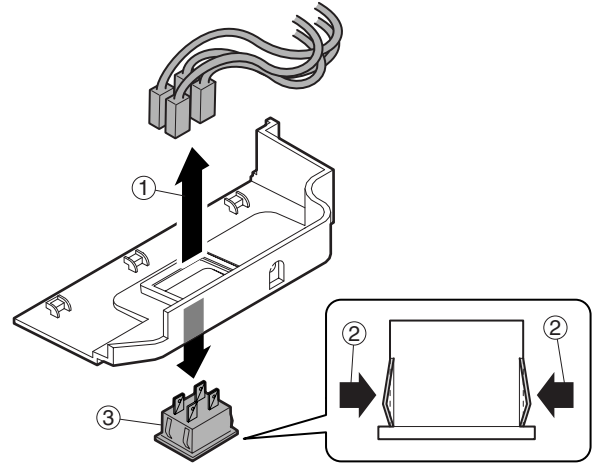
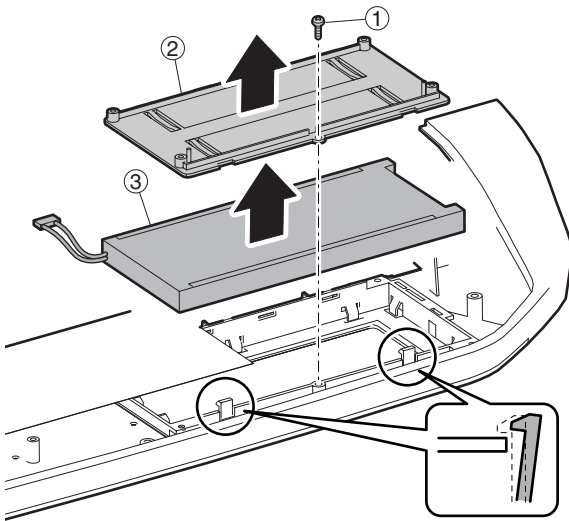




### (3) Key PWB

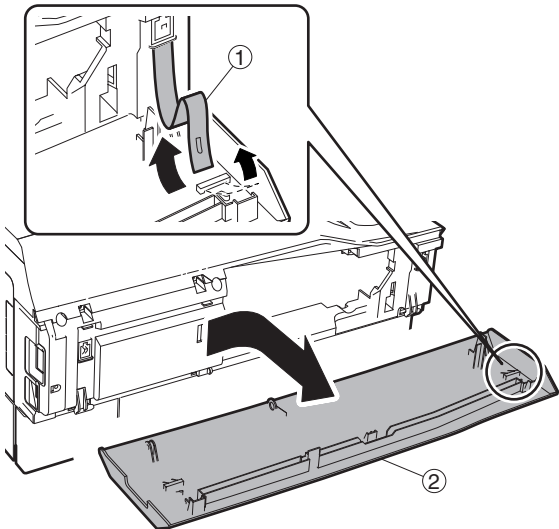


### (4) LCD unit



### P. Switch

#### (1) Power switch



## [11] OTHERS

### 1. Flash ROM version-up procedure

#### (Necessary items for version-up)

- A Personal computer
- B RS232C cross cable (D-sub 9pin to D-sub 9pin, or D-sub 25pin to D-sub 9pin)
- C Software for version-up

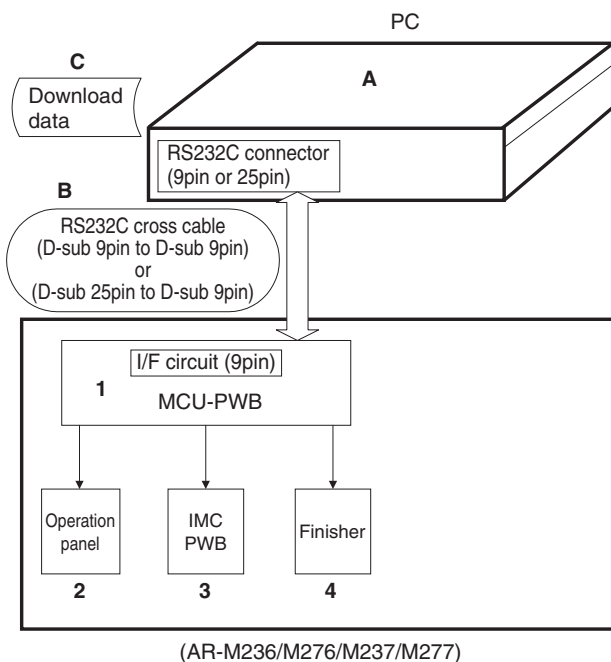
#### (ROM type)

The flash ROM is directly installed to each PWB.

#### (Target PWB)

- 1 MCU PWB
- 2 Panel PWB
- 3 IMC PWB
- 4 Finisher PWB

#### Outline of Version-up Procedure



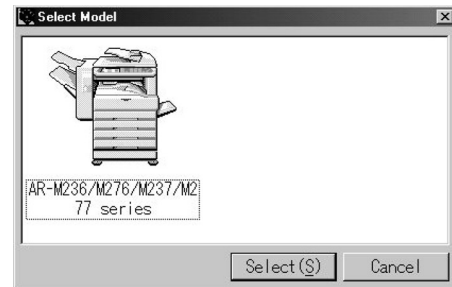
#### Prepare following files necessary for program download

- Maintenance software: maintenance.exe
- Andromeda module file: ProcModelC.mdl (for AR-M236/M276/M237/M277 series)

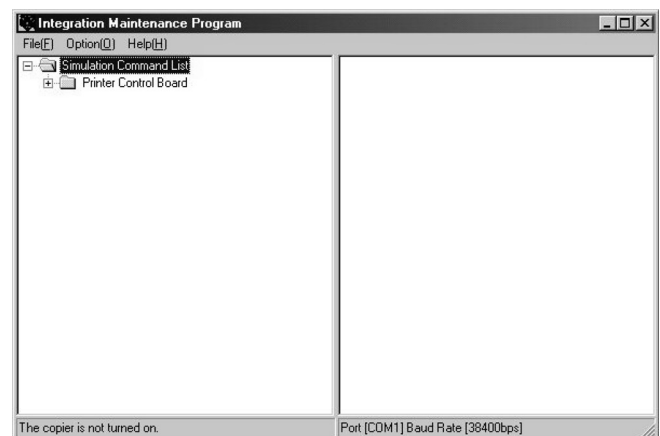
### A. Program download method (for Copier, and fax program)

Following operational procedures are for:

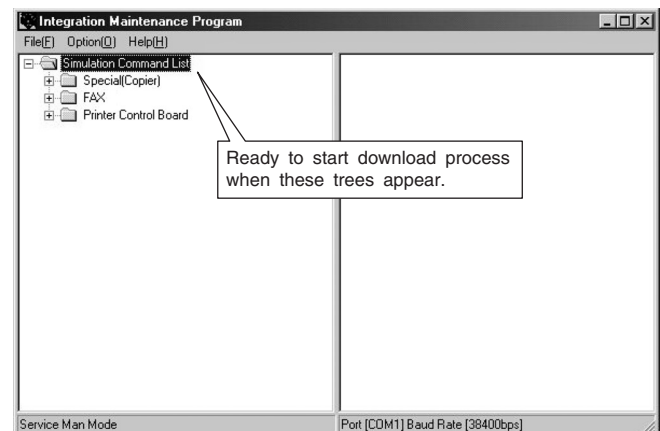
- Copier program
  - fax program
- 1) Make sure copier is off, and connect it to PC with download cable beforehand.
  - 2) Start up the maintenance program on PC. Select model name "AR-M236/M276/M237/M277 Series" from the model selection dialogue box.



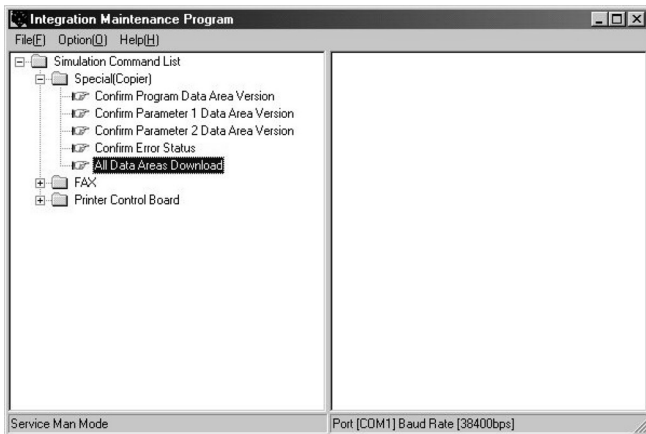
- 3) Make sure only "Printer Control Board" tree is visible under "Simulation Command List".



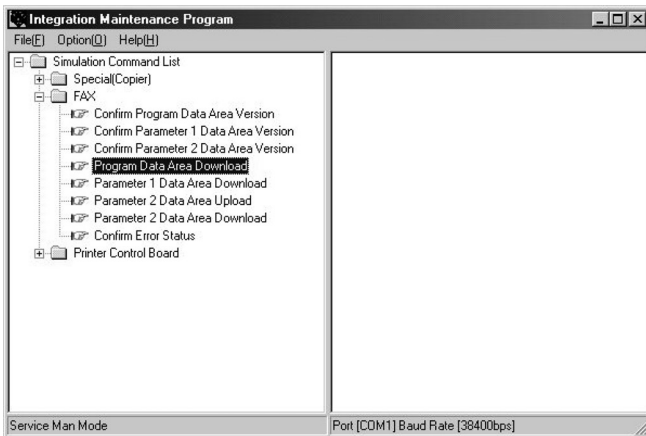
- 4) Turn on the copier. The machine starts up in the download mode.
  - 5) Additional tree will be visible when downloading maintenance program on PC.
- \* Make sure to start up maintenance program before turn on the machine.



- 6) When downloading copier program, expand "Special(Copier)", and double-click on "All Data areas Download".



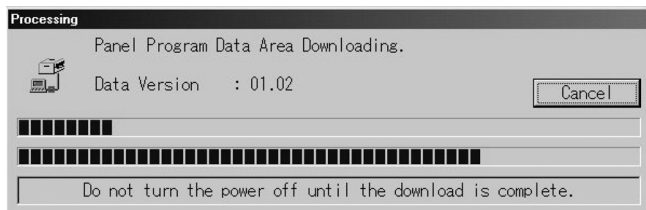
When downloading Fax program, Expand "FAX" and double click on "Program Data Area Download".



- 7) Select download file(\*.dat), and press "Open" button.



- 8) Download procedure starts automatically.



- 9) Notice message "Download is complete. Check the copier panel to make sure the download is complete." will appear on PC.  
10) Close the maintenance program, and turn off the copier. Turn on the copier again after pulling the plug.

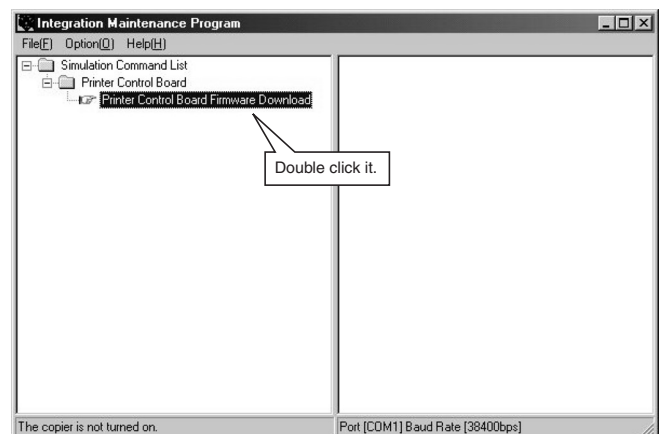
This is the end of download procedure.

- \* It is possible that download process somehow went wrong if the copier does not start up properly. In that case, start up the copier and maintenance program in download mode by repeating the step 1)-5) again. And then, Expand "Special", and double-click on "Confirm Error Status". If any of the message besides "No error has been occurred" appears, it means that download is incomplete, so please try again.

## B. Printer Control Board firmware download method

Please follow the procedure below:

- 1) Make sure copier is turned off, and connect PC and Printer Control board of the copier by parallel cable beforehand.
- \* Note: It is okay to use serial cable instead.
- 2) Turn on the copier.
- 3) Start up in copier test command mode, and execute Sim67-14 "FLASHDOWNLOAD".
- 4) And then, press OK key when notice message "PRESS OK KEY" appears on the panel. Another message "Please Send Data" will appear after a while.
- 5) Start up the maintenance program on PC. Select model name "AR-M236/M276/M237/M277 Series" from the model selection dialogue box.
- 6) Expand "Printer Control Board", and double-click on "Printer Control Board Firmware Download".



- 7) Dialog box will appear to select download file.



- 8) Select Download file(\*.sfu) and press "Open" button.
- 9) Download procedure will starts automatically.
- 10) Notice message "Data Send Complete" will appear on PC.
- 11) Notice message "Download is complete. Check the copier panel to make sure the download is complete." will appear on PC.
- 12) Close maintenance program, and reset the machine by pressing CA key.

This is the end of the download procedure.

## C. Others (Troubleshooting)

Followings are the error possibly occur during the download process and troubleshooting method.

No	Warning/error message	Detail
1	Incorrect destination. Continue with the download process?	Destination of download file and copier doesn't match. Possible to select either continue or cancel the job. [TROUBLESHOOTING] To change destination, select "Yes". If not, select "No" and cancel download process.
2	Incorrect download file.	Invalid download file for the machine is selected, or the file format is not correct. [TROUBLESHOOTING] Confirm the download file. Possibly the improper download file is selected.
3	No downloadable data included.	Unable to find appropriate data in selected download file. [TROUBLESHOOTING] Confirm the download file. Possibly the improper download file is selected.
4	This option not available.	Download procedure is executed on uninstalled optional kit. [TROUBLESHOOTING] Confirm installed optional kit. Confirm the download file. Possibly the improper download file is selected.
5	The data size exceeds the Flash ROM size. Try again with the appropriate size of data.	Panel flash ROM size is not enough to execute download procedure. [TROUBLESHOOTING] Confirm the download file. Possibly the improper download file is selected. Exchange the flash ROM to the one which has more capacity.
6	Time out error.	Transmission error Unable to receive data from the machine among the certain period of time. [TROUBLESHOOTING] Restart maintenance program after confirming communication port or communication cable.
7	Communication (incoming) error.	Incorrect download procedure. The machine did not proceed download procedure correctly. [TROUBLESHOOTING] Restart maintenance program after confirming communication port or communication cable. Make sure the communication device of PC(either COM or parallel) is under right condition.
8	Checksum error.	Transmission error The check sum value of the transmission data is mismatch. [TROUBLESHOOTING] Restart maintenance program after confirming communication device of PC (either COM or parallel) is under right condition.
9	Error during the download process. Error code: 0XXXXXXXXX	Download data file operation error. [TROUBLESHOOTING] Restart maintenance program after confirming the selected download file is not abnormal and not using other application.
10	An error. [0XXXXXXXXX]	The error occurred except the above errors. [TROUBLESHOOTING] Restart maintenance program after confirming communication device of PC(either COM or parallel) is under right condition.

## 2. Key operator program list

Note: Some programs on the key operator program list may be unavailable depending on the machine and installing status of various peripheral devices.

### A. Common program of digital copier

	Key operator programs	Set value (*: Default value)	Remarks
Account control	Auditing mode	ON / OFF*	When this is set to ON, the department number must be registered in the "Account number control".
	Total pages per account	—	
	Resetting account	—	
	Account number control	—	
	Account limit setting	—	
	Account number security	ON / OFF*	
	Cancel jobs of invalid accounts	ON / OFF*	
Energy save	Auto power shut-off	ON* / OFF	
	Auto power shut-off timer	1 – 240 (Increment of 1min.) 60 (min.)*	Effective only when the "Auto power shut-off" is set to ON.
	Preheat mode setting	1 – 240 (Increment of 1min.) 15 (min.)*	
	Toner save mode	ON / OFF*	This is not displayed for SUK.
Operation settings	Auto clear setting	10 – 240 (Increment of 10sec.) 60 (sec.)*	
	Message time setting	1 – 12 (Increment of 1sec.) 6 (sec.)*	

Key operator programs			Set value (*: Default value)	Remarks
Operation settings	Keys touch sound	Keys touch sound	Short* / Long	
		Keys touch sound at initial point	ON / OFF*	
	Touch key operation setting	Time to entry	0.0 – 2.0 (Increment of 0.5sec.) 0.0 (sec.)*	
		Disable auto key repeat	ON / OFF*	
	Disable interrupt print job		ON / OFF*	When the printer function is valid.
	Stream feeding mode		ON / OFF*	When the reversing single pass feeder installed.
	Display language setting		The number of languages to be set and the default value differ depending on destinations.	[List of languages to be set] American English, English, Spanish, French, German, Italian, Hungarian, Czech, Polish, Russian, Greek, Turkish, Slovak, Dutch, Swedish, Norwegian, Finnish, Danish, Portuguese, Hebrew, Simplified Chinese, Traditional Chinese
	Disable display timeout		ON / OFF*	
	Disable of tray settings		ON / OFF*	
Device control	Disabling of document feeder		ON / OFF*	When the reversing single pass feeder installed.
	Disabling of duplex		ON / OFF*	
	Disabling of stapler		ON / OFF*	When the finisher installed.
	Output trays		Pattern 1* / Pattern 2 / Pattern 3 / Pattern 4	When an option of paper exit series is installed.
	Offset function setting		ON* / OFF	
	Memory for printer (When the printer function is valid.)		30 / 40 / 50* / 60 / 70%	
		Memory area for print hold	0 / 30* / 40 / 50 / 60 / 70% (0%: Function inhibited)	When the PCL printer expansion board is installed or the model with the board.
	Disabling of center tray counting		ON / OFF*	
	Return from copy mode timing		1 – 60 (Increment of 1sec.) 60 (sec.)*	When the printer function or the FAX function is valid.
Key operator code change			00000* (5 digits)	
Product key (When the printer function is valid.)	PS3 expansion kit		—	When the printer function is valid.
	Network scanner expansion kit		—	Appears when the printer expansion kit and expansion memory are installed.
	E-MAIL alert and status		—	When the PCL printer expansion board is installed or the model with the board.
	Serial number		—	

## B. Copy function setting program

Key operator programs			Set value (*: Default value)	Remarks
Copy settings	Initial status settings		—	
	Rotation copy setting		ON* / OFF	
	Exposure adjustment		1 / 2 / 3* / 4 / 5	
	Auto paper selection setting		Plain paper* / Plain and recycle paper	
	Setting a maximum number of copies		1 – 999 999*	
	Sort auto select		ON* / OFF	When the reversing single pass feeder installed.
	Disabling deletion of job programs		ON / OFF*	

## C. Printer function setting program

Key operator programs			Set value (*: Default value)	Remarks
Print settings				
Default settings	Prohibit notice page printing		ON / OFF*	
	Print density level		1 / 2 / 3* / 4 / 5	
	Prohibit test page printing		ON / OFF*	When the PCL printer expansion board is installed or the model with the board.
	Rotated print		ON* / OFF	
	Forced output of print		ON / OFF*	
	Excluded bypass-tray from ATS		ON* / OFF	

Key operator programs		Set value (*: Default value)	Remarks
Default settings	Disable default setting changes	ON / OFF*	When the PCL printer expansion board is installed or the model with the board.
Interface settings	Hexadecimal dump mode	ON / OFF*	When the PCL printer expansion board is installed or the model with the board.
	I/O timeout	1 – 999 (Increment of 1sec.) 180 (sec.)* (60 (sec.)*: When the PCL printer expansion board is installed or the model with the board.)	
	Parallel port emulation switching	Auto* / PostScript (When the PS3 expansion kit is installed.) / PCL	When the PCL printer expansion board is installed or the model with the board.
	USB port emulation switching	Auto / PostScript (When the PS3 expansion kit is installed.) / PCL*	When the PCL printer expansion board is installed or the model with the board.
	Network port emulation switching	Auto* / PostScript (When the PS3 expansion kit is installed.) / PCL	When the PCL printer expansion board is installed or the model with the board.
	Port switching method	Switch at end of job* / Switch after I/O timeout	When the PCL printer expansion board is installed or the model with the board.
	Enable parallel port	ON* / OFF	When the PCL printer expansion board is installed or the model with the board.
	Enable USB port	ON* / OFF	When the PCL printer expansion board is installed or the model with the board.
	Enable network port	ON* / OFF	When the print server card is installed.
	Enable ECP	ON / OFF*	When the PCL printer expansion board is installed or the model with the board.
Network settings (When the print server card installed.)	IP address setting	DHCP: ON* / OFF	When the PCL printer expansion board is installed or the model with the board (Also displayed when the print server card is not installed.) To enable the changed setup, the power must be rebooted.
	Enable TCP/IP	ON* / OFF	To enable the changed setup, the power must be rebooted.
	Enable NetWare	ON* / OFF	
	Enable EtherTalk	ON* / OFF	
	Enable NetBEUI	ON* / OFF	When the PCL printer expansion board is installed or the model with the board (Also displayed when the print server card is not installed.)To enable the changed setup, the power must be rebooted.
	Reset the NIC	—	
Initialize and/or store settings (When the PCL printer expansion board is installed or the model with the board.)	Restore factory default	—	
	Store current configuration	—	
	Restore configuration	—	Reboot is required only when the network setting is changed.

#### D. Network scanner function setting program

Key operator programs		Set value (*: Default value)	Remarks
Scanner settings (When the scanner function is valid.)	Initial file format setting	File type	PDF / TIFF*
		Compression mode	No compression / MH (G3) / MMR (G4)*
		Pages per file	ALL*
	Initial quality setting	Original image type	TEXT / TEXT/PHOTO* / PHOTO
		Exposure	Auto* / Manual (1 / 2 / 3 / 4 / 5)
	Initial resolution setting	200dpi / 300dpi* / 400dpi / 600dpi	(400dpi: For China, Taiwan)
	Default display settings	Condition settings* / Address book / Address book (ABC) / Address book (Group)	
	The number of direct address/sender keys displayed setting	6 / 8* / 12 (pcs.)	

### 3. E-mail Status/E-mail Alerts

#### A. Basic functions

- 1) Event driven type text message transmission by using MIB information of Printer control board.
- 2) Management information which body has is coded and transmitted in a file type according to the schedule or in the event driven type. In this case, the specified mail software is used to receive and develop the data.

The above functions are available as standard provision only when the NIC card are installed.

For 2), the software key protect is made.

#### B. Main body specifications

The body provides event information to the controller. according to setup the file can be transmitted as an attached file as information for dealers. When a dealer's mail address is set, a file can be attached only to a mail which is transmitted to the mail address.

To read the attached file, the specified mail software is required. That is, the attached file includes numeral information of each main body and event information in coded state. If the other mail software is used to receive, the display contents on the client side cannot be guaranteed.

#### (2) Alert Message

ID	Event	Message	Condition
1	Paper Jam	!!! MISFEED HAS OCCURRED !!!	When paper/document jam has occurred. If a jam is detected when the power is turned ON or reset, checking is made again.
2	Toner Low	!!! TONER SUPPLY IS LOW !!!	When toner LOW is detected for the first time. If toner LOW is detected when the power is turned ON or reset, checking is made again.
3	Toner Empty	!!! ADD TONER !!!	When toner empty is detected for the first time. If toner empty is detected when the power is turned ON or reset, checking is made again.
4	Paper Empty	!!! LOAD PAPER/XXX !!!	When paper empty is detected for the first time. If paper empty is detected when the power is turned ON or reset, checking is made again. No information on the number of steps of trays. Manual feed is not supported. When a tray empty is detected, information of all the trays that are empty at that time is delivered.
5	Service Required	!!! CALL FOR SERVICE !!!	When the machine enters the self-diagnosis mode. If detected when the power is turned ON or reset, checking is made again.
6	PM Required	!!! MAINTENANCE REQUIRED !!!	When the maintenance counter or the developer counter reaches the specified count. If detected when the power is turned ON or reset, checking is made again.

#### (3) Status Message

##### Counter information

When schedule driven is set, the total counter, the copy counter, and the printer counter are displayed in a mail address for general. These information items are supplied from the controller MIB. The "total counter" means the "effective paper counter" controlled by the MCU.

##### Timer information

For schedule drive message, the Printer controller controls transmission time by means, and transmits a mail.

Timer setup is made from the Web setup page.

#### C. Printer controller specifications

The controller supports the following transmission functions:

- Text mail transmission by event driven setup and schedule driven setup.
- Mail transmission with an attached file by event driven setup and schedule driven setup. For the attached file, the printer controller makes a file of information data from the MCU.
- It controls sending time and requests for the machine information at the sending time to the MCU.

##### (1) Additional machine information

Information to identify the machine. The user administrator manually enters this information by using a browser. The information is displayed in the text of the mail.

- \* These items of information are kept on the controller side or on the NIC side.
- Machine name
- Machine code
- Installation place

#### D. Handling of transmission data

In E-mail Alerts and E-mail Status, a transmission task is generated regardless of the job which is under process in the machine. These tasks are processed in the following rules:

- When the machine receives a mail transmission request during a job process (copy scan, copy output, print output, other process) of the machine, it performs transmission process regardless of the job.
- When the machine receives a mail transmission request under other situation, if the job is triggered during transmission process, the job is started.
- When the machine receives a mail transmission request during the simulation mode, the request is accepted and transmission process is started.
- When the machine receives a mail transmission request during the key operator program, it is accepted and transmission process is started.
- When the controller sends two or more requests during a job, only the last request is accepted.

## 1. Block diagram





(1/11)



The diagram illustrates the PCB layout for a device, showing the interconnection of four main components: MCU PWB, OPU PWB, KEY PWB, and LCD UNIT. The layout is defined by a dashed border.

**MCU PWB:** Located at the top left, it features a connector labeled CN9 (18FMM-BTK) with pins 1 through 18. Pin 1 is GND, pin 2 is 5V<sub>sub</sub>, pin 3 is 5V<sub>sub</sub>, pin 4 is Shared LED, pin 5 is GND, pin 6 is /OPURXD, pin 7 is /OPUTXD, pin 8 is /OPURXD, pin 9 is /OPURXD, pin 10 is /OPURXD, pin 11 is RESET#, pin 12 is 3.3V, pin 13 is 3.3V, pin 14 is 5V, pin 15 is GND, pin 16 is GND, pin 17 is 24V, and pin 18 is GND.

**OPU PWB:** Located at the top right, it features a connector labeled CN1 (18FMM-BTK) with pins 1 through 18. Pin 1 is GND, pin 2 is 5V<sub>sub</sub>, pin 3 is 5V<sub>sub</sub>, pin 4 is Shared LED, pin 5 is GND, pin 6 is /OPURXD, pin 7 is /OPUTXD, pin 8 is /OPURXD, pin 9 is /OPURXD, pin 10 is /OPURXD, pin 11 is RESET#, pin 12 is 3.3V, pin 13 is 3.3V, pin 14 is 5V, pin 15 is GND, pin 16 is GND, pin 17 is 24V, and pin 18 is GND. It also features a connector labeled CN4 (04FLS-SMT-TB) with pins 1 through 4. Pin 1 is GND, pin 2 is X1, pin 3 is Y2, and pin 4 is X2.

**KEY PWB:** Located at the bottom left, it features a connector labeled CN1 (23FMM-BMT-TF) with pins 1 through 23. Pin 1 is GND, pin 2 is /START KEY, pin 3 is SENSE0, pin 4 is SENSE1, pin 5 is SENSE2, pin 6 is SENSE3, pin 7 is SENSE4, pin 8 is SCAN0, pin 9 is SCAN1, pin 10 is SCAN2, pin 11 is SCAN3, pin 12 is SCAN4, pin 13 is /SEG0, pin 14 is /SEG1, pin 15 is /SEG2, pin 16 is /SEG3, pin 17 is COM0, pin 18 is COM1, pin 19 is COM2, pin 20 is RST PWR, pin 21 is /START LED, pin 22 is 5V<sub>sub</sub>, and pin 23 is GND.

**LCD UNIT:** Located at the bottom right, it features a connector labeled CN2 (23FMM-BTK-A) with pins 1 through 23. Pin 1 is GND, pin 2 is /START KEY, pin 3 is SENSE0, pin 4 is SENSE1, pin 5 is SENSE2, pin 6 is SENSE3, pin 7 is SENSE4, pin 8 is SCAN0, pin 9 is SCAN1, pin 10 is SCAN2, pin 11 is SCAN3, pin 12 is SCAN4, pin 13 is /SEG0, pin 14 is /SEG1, pin 15 is /SEG2, pin 16 is /SEG3, pin 17 is COM0, pin 18 is COM1, pin 19 is COM2, pin 20 is RST PWR, pin 21 is /START LED, pin 22 is 5V<sub>sub</sub>, and pin 23 is GND. It also features a connector labeled CN3 (20FLS-SMT-TB) with pins 1 through 20. Pin 1 is GND, pin 2 is N.C, pin 3 is N.C, pin 4 is N.C, pin 5 is N.C, pin 6 is GND, pin 7 is LCD D3, pin 8 is LCD D2, pin 9 is LCD D1, pin 10 is LCD D0, pin 11 is GND, pin 12 is LCD VEE, pin 13 is 3.3V OP, pin 14 is LCD DIS, pin 15 is LCD DIS, pin 16 is LCD CP1, pin 17 is LCD CP2, pin 18 is LCD CP1, pin 19 is LCD M, pin 20 is LCD S.

**Other Labels:** The diagram includes labels for "TOUCH PANEL" and "LCD UNIT". It also shows various signal lines and connectors, including CN1, CN2, CN3, CN4, and CN5.

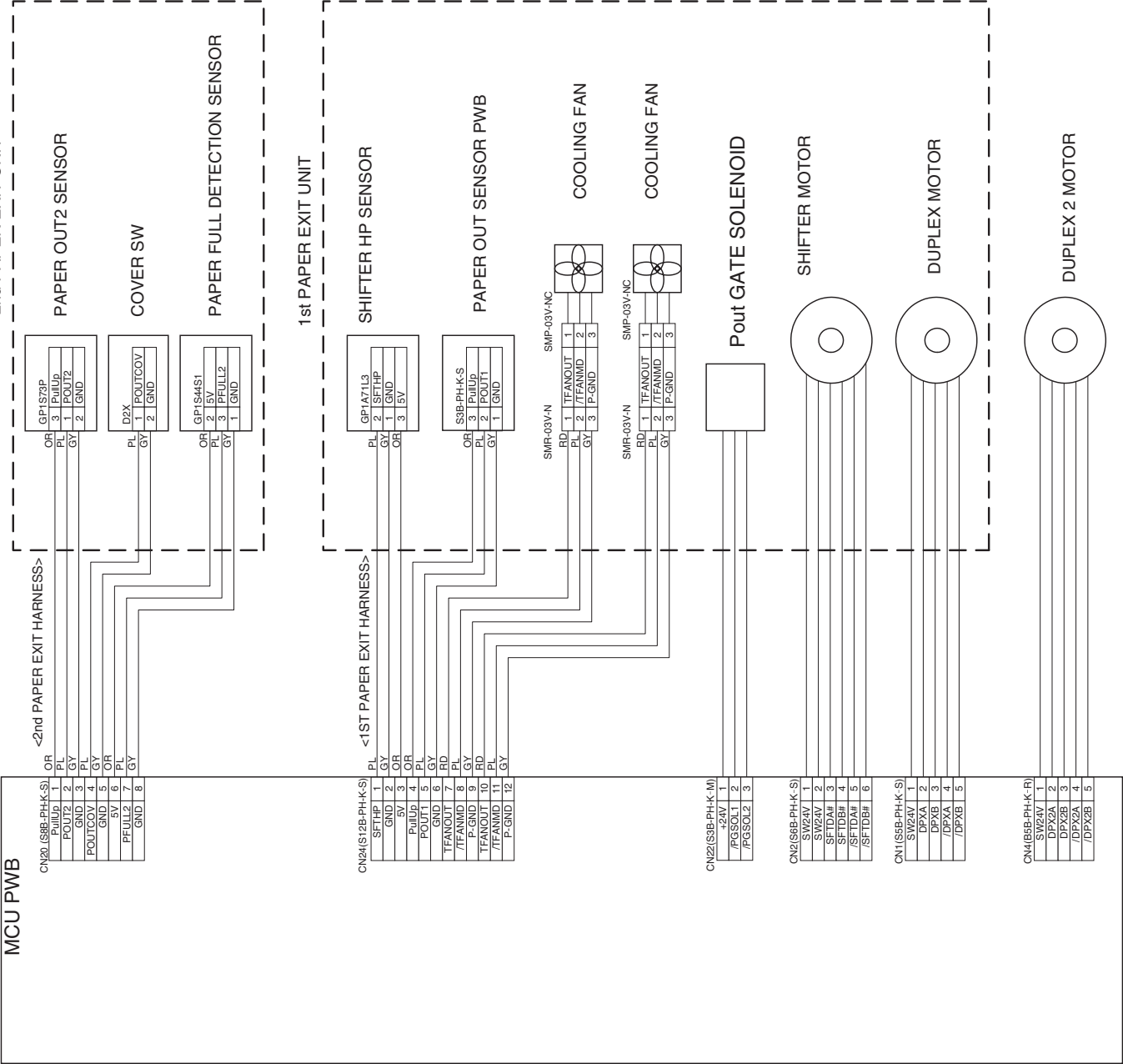
(2) MCU PWB - OPTICAL BASE PLATE (SENSOR) (3/11)



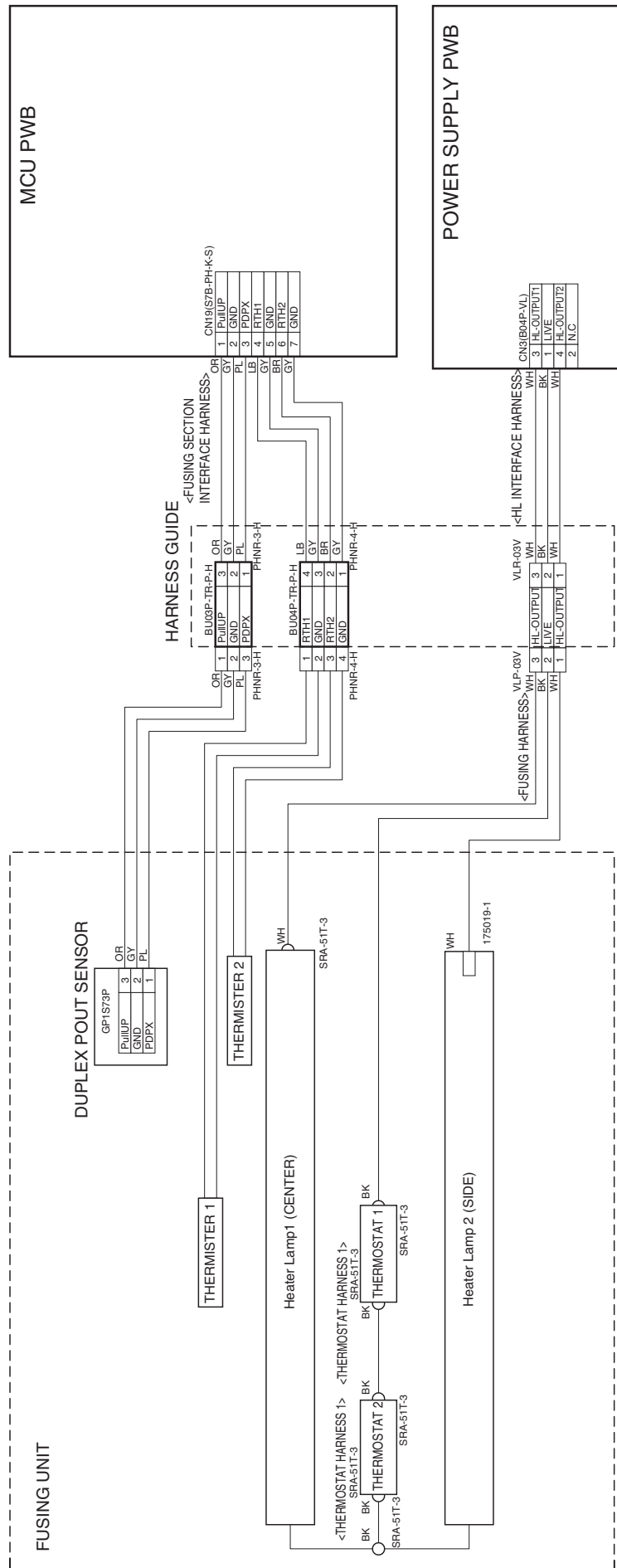
# OPTICAL BASE PLATE



(4) MCU PWB - 1ST PAPER EXIT UNIT - 2ND PAPER EXIT UNIT (5/11)



(5) MCU PWB - FUSING UNIT - POWER SUPPLY PWB (6/11)



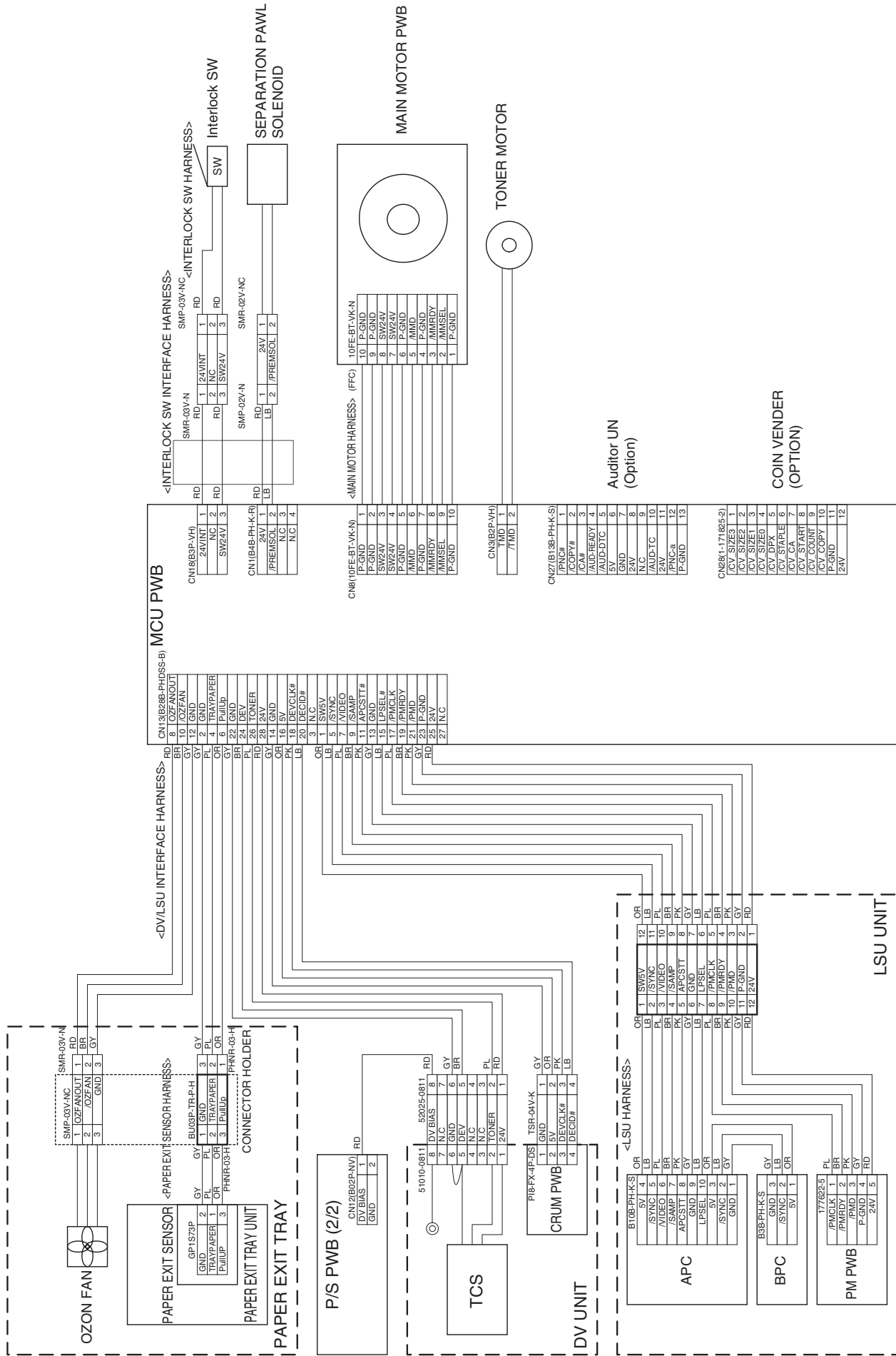
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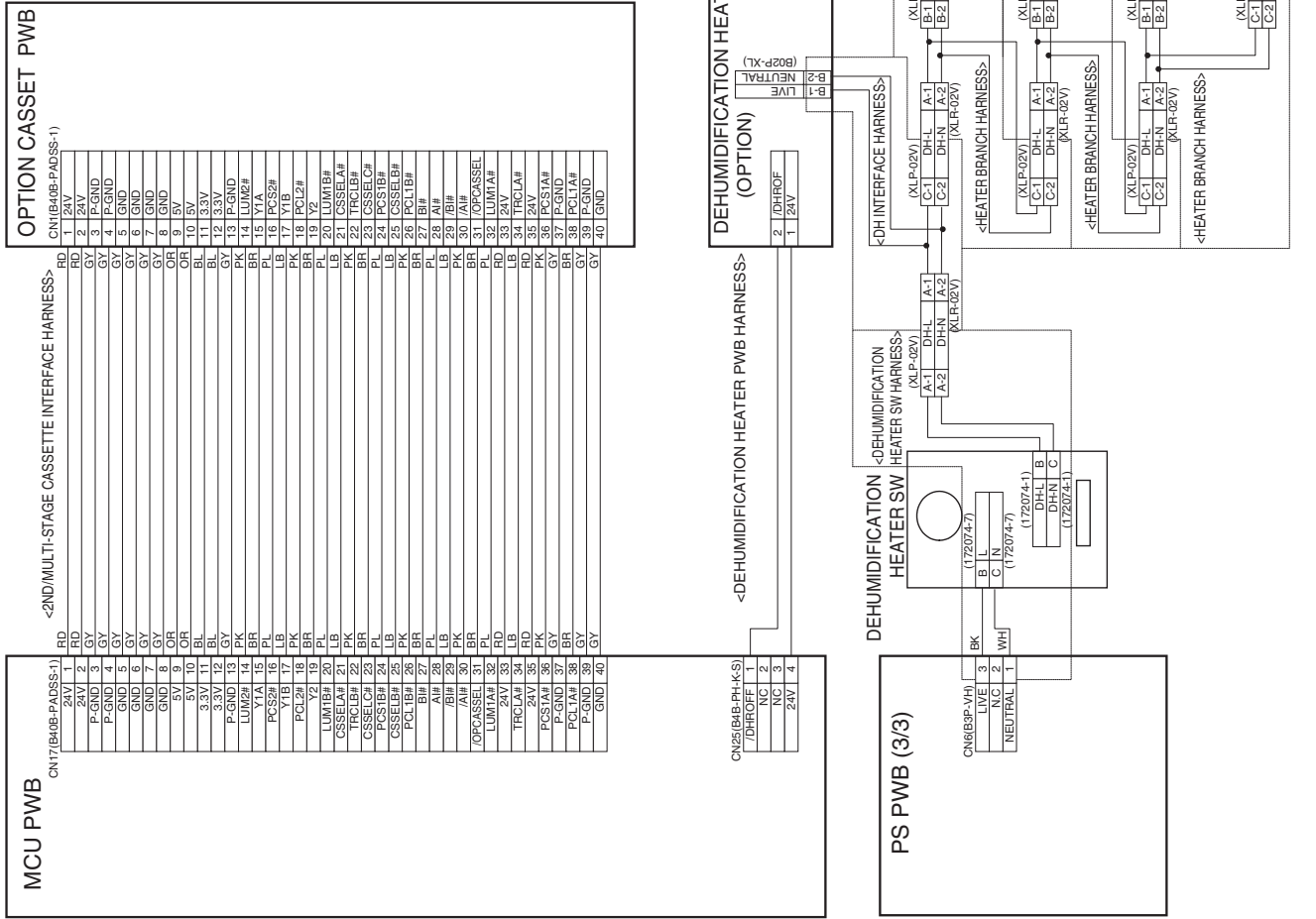
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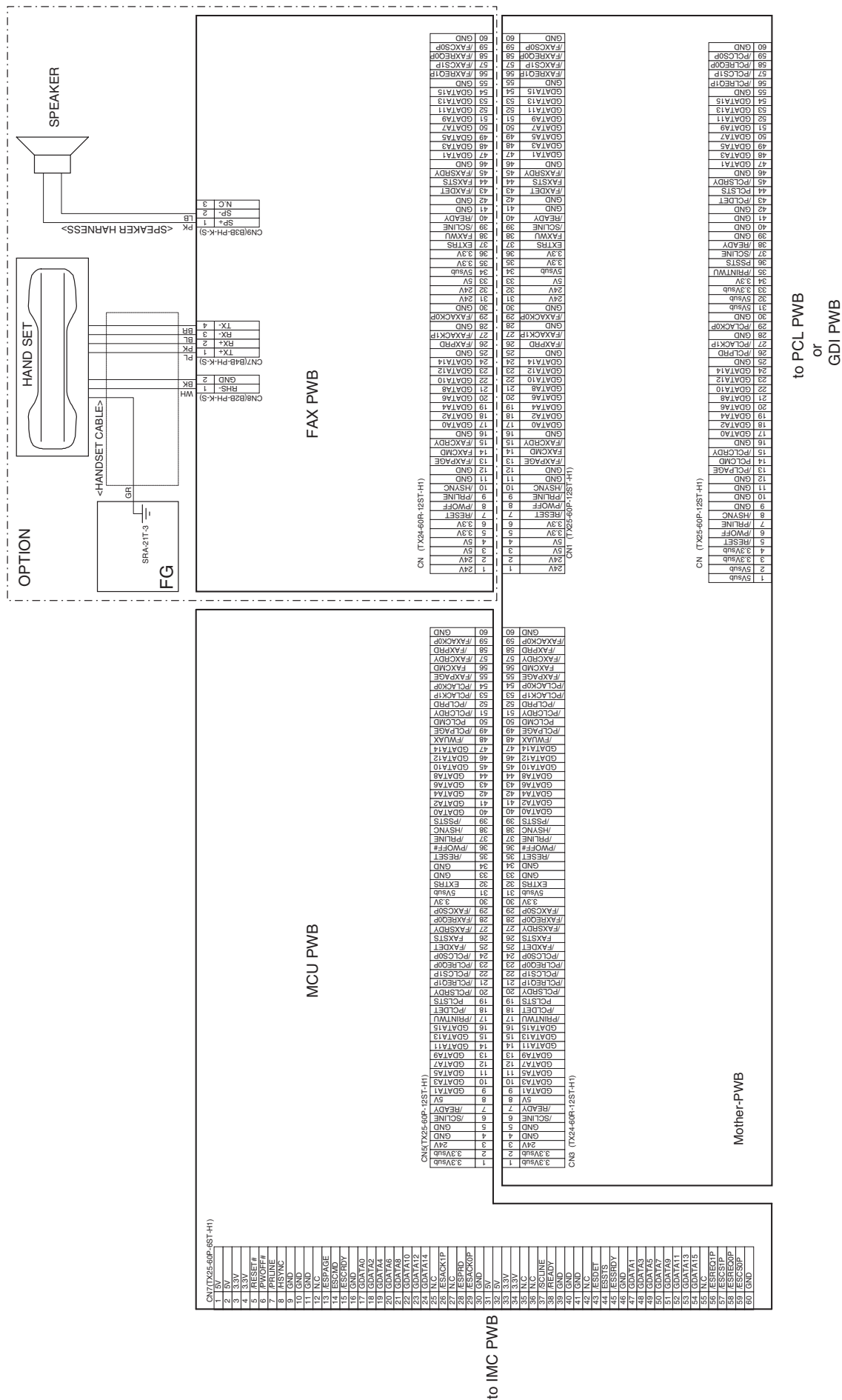
(8) MCU PWB - DV UNIT-LSU UNIT - OTHERS (9/11)



(9) MCU PWB - OPTION CASSETTE - DEHUMIDIFICATION HEATER (10/11)



(10) Boad to Boad (11/11)

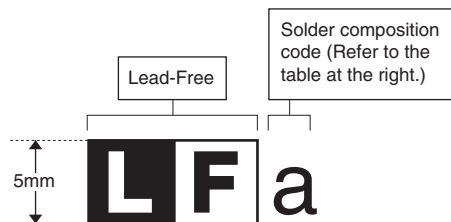


# LEAD-FREE SOLDER

The PWB's of this model employs lead-free solder. The "LF" marks indicated on the PWB's and the Service Manual mean "Lead-Free" solder.

The alphabet following the LF mark shows the kind of lead-free solder.

## Example:



<Solder composition code of lead-free solder>

Solder composition	Solder composition code
Sn-Ag-Cu	a
Sn-Ag-Bi	b
Sn-Ag-Bi-Cu	
Sn-Zn-Bi	z
Sn-In-Ag-Bi	i
Sn-Cu-Ni	n
Sn-Ag-Sb	s
Bi-Sn-Ag-P	p
Bi-Sn-Ag	

## (1) NOTE FOR THE USE OF LEAD-FREE SOLDER THREAD

When repairing a lead-free solder PWB, use lead-free solder thread.

Never use conventional lead solder thread, which may cause a break-down or an accident.

Since the melting point of lead-free solder thread is about 40°C higher than that of conventional lead solder thread, the use of the exclusive-use soldering iron is recommendable.

## (2) NOTE FOR SOLDERING WORK

Since the melting point of lead-free solder is about 220°C, which is about 40°C higher than that of conventional lead solder, and its soldering capacity is inferior to conventional one, it is apt to keep the soldering iron in contact with the PWB for longer time. This may cause land separation or may exceed the heat-resistive temperature of components. Use enough care to separate the soldering iron from the PWB when completion of soldering is confirmed.

Since lead-free solder includes a greater quantity of tin, the iron tip may corrode easily. Turn ON/OFF the soldering iron power frequently.

If different-kind solder remains on the soldering iron tip, it is melted together with lead-free solder. To avoid this, clean the soldering iron tip after completion of soldering work.

If the soldering iron tip is discolored black during soldering work, clean and file the tip with steel wool or a fine filer.

## CAUTION FOR BATTERY REPLACEMENT

(Danish) ADVARSEL !  
Lithiumbatteri – Eksplosionsfare ved fejlagtig håndtering.  
Udskiftning må kun ske med batteri  
af samme fabrikat og type.  
Levér det brugte batteri tilbage til leverandoren.

(English) Caution !  
Danger of explosion if battery is incorrectly replaced.  
Replace only with the same or equivalent type  
recommended by the manufacturer.  
Dispose of used batteries according to manufacturer's instructions.

(Finnish) VAROITUS  
Paristo voi räjähtää, jos se on virheellisesti asennettu.  
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan  
tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden  
mukaisesti.

(French) ATTENTION  
Il y a danger d'explosion s' il y a remplacement incorrect  
de la batterie. Remplacer uniquement avec une batterie du  
même type ou d'un type équivalent recommandé par  
le constructeur.  
Mettre au rebut les batteries usagées conformément aux  
instructions du fabricant.

(Swedish) VARNING  
Explosionsfara vid felaktigt batteribyte.  
Använd samma batterityp eller en ekvivalent  
typ som rekommenderas av apparattillverkaren.  
Kassera använt batteri enligt fabrikantens  
instruktion.

(German) Achtung  
Explosionsgefahr bei Verwendung inkorrektter Batterien.  
Als Ersatzbatterien dürfen nur Batterien vom gleichen Typ oder  
vom Hersteller empfohlene Batterien verwendet werden.  
Entsorgung der gebrauchten Batterien nur nach den vom  
Hersteller angegebenen Anweisungen.

## CAUTION FOR BATTERY DISPOSAL

(For USA, CANADA)

"BATTERY DISPOSAL"  
THIS PRODUCT CONTAINS A LITHIUM PRIMARY  
(MANGANESE DIOXIDE) MEMORY BACK-UP BATTERY  
THAT MUST BE DISPOSED OF PROPERLY. REMOVE THE  
BATTERY FROM THE PRODUCT AND CONTACT YOUR  
LOCAL ENVIRONMENTAL AGENCIES FOR INFORMATION  
ON RECYCLING AND DISPOSAL OPTIONS.

"TRAITEMENT DES PILES USAGÉES"  
CE PRODUIT CONTIENT UNE PILE DE SAUVEGARDE DE  
MÉMOIRE LITHIUM PRIMAIRE (DIOXYDE DE MANGANESE)  
QUI DOIT ÊTRE TRAITÉE CORRECTEMENT. ENLEVEZ LA  
PILE DU PRODUIT ET PRENEZ CONTACT AVEC VOTRE  
AGENCE ENVIRONNEMENTALE LOCALE POUR DES  
INFORMATIONS SUR LES MÉTHODES DE RECYCLAGE ET  
DE TRAITEMENT.



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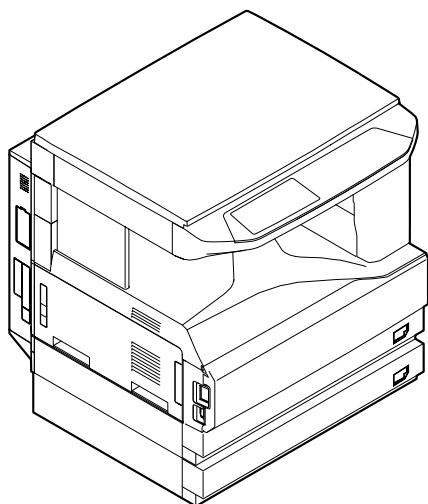
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## DIGITAL LASER COPIER / PRINTER

### AR-M277

### AR-M237

### AR-M276

### MODEL AR-M236

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Because parts marked with "▲" is indispensable for the machine safety maintenance and poeration, it must Be replaced with the parts specific to the product specification.

## DEFINITION

The definition of each Rank is as follows and also noted in the list

Rank A : Maintenance parts, and consumable parts which are not included in but closely related to maintenance parts

Rank B : Performance/function parts (sensors, clutches, and other electrical parts), consumable parts

Rank E : Unit parts including PWB

Rank D : Preparation parts (External fitting, packing, parts packed together)

Rank C : Parts other than the above (excluding sub components of PWB)

Because parts marked with "△" is indispensable for the machine safety maintenance and operation, it must be replaced with the parts specific to the product specification.

- Other than this Parts Guide, please refer to documents Service Manual (including Circuit Diagram) of this model.
- Please use the 13 digit code described in the right hand corner of front cover of the document, when you place an order.
- For U.S. only-Use order codes provided in advertising literature. Do not order from parts department.

### 1 Exteriors 1

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	GCAB-0081QSZZ	AN	N	D	Optical left cabinet
2	GCAB-0080QSZZ	AN	N	D	Optical right cabinet
3	CFIX-0013QS05	AN	N	D	Glass fixing plate
4	PSHEZ0220QSZ1	AK		C	Shading sheet
5	LX-BZ0024QSZZ	AA		C	Screw
6	GCAB-0084QSZZ	AV	N	D	Rear exterior upper
7	CGIDM0116QS02	AK		C	OR guide unit
8	LFIX-0011QSZB	AP	N	D	SPF fixing glass (AR-M276/M236)
11	PGLSP0003QSZZ	BA		B	Table glass
17	LFIX-0012QSZB	AK	N	D	SPF fixing glass (AR-M277/M237)
18	PSHEZ0221QSZZ	AC		C	White revise sheet (AR-M277/M237)
19	PGLSP0004QSZZ	AX		B	Glass (AR-M277/M237)
20	PSHEZ0207QSZZ	AC		C	SPF glass sheet F (AR-M277/M237)
21	PSHEZ0222QSZZ	AC		C	Glass fixing sheet (AR-M277/M237)
22	PCUSS0011QSZZ	AB		C	Glass cushion (AR-M277/M237)
23	PSHEZ0208QSZZ	AC		C	Glass sheet R (AR-M277/M237)
24	PCUSS0027QSZZ	AA		C	Glass cushion C (AR-M277/M237)
25	PSHEZ0088QSZ1	AD	N	C	Table glass sheet F
26	PMLT-0093QSZZ	AB	N	C	Rear exterior upper cushion

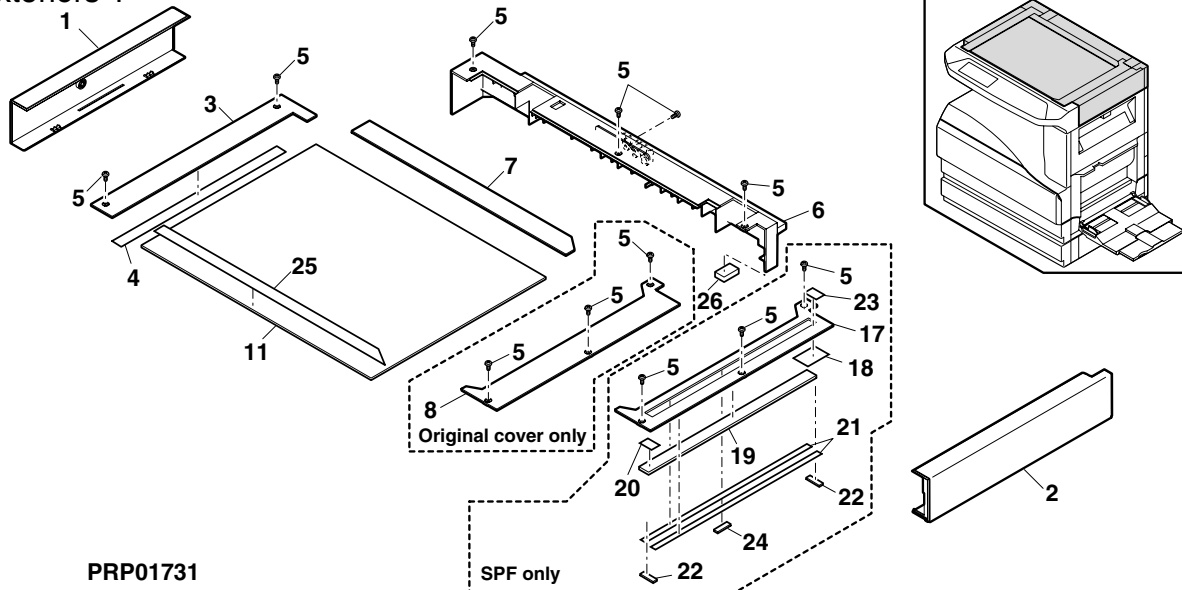
### 2 Exteriors 2

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	GCAB-0042QSZB	AQ	N	D	Rear exterior left
2	XEBSE30P12000	AA		C	Screw(3×12)
3	XHBSE30P08000	AA		C	Screw(3×8)
4	GCOV-0029QSZ1	AR	N	D	Delivery rear side cover upper
5	GCOV-0056QSZZ	AH	N	D	Rear exterior maintenance cover
6	GCAB-0043QSZB	AN	N	D	Rear exterior lower
7	XEBSE40P10000	AA		C	Screw(4×10)
8	GCAB-0085QSZZ	AZ	N	D	Rear exterior right
9	GCOV-0034QSZB	AK	N	D	Rear exterior memory cover
10	GCOV-0031QSZZ	AK		D	Delivery dummy cover (AR-M276/M236)
11	MSPRD0189QSZZ	AB		C	Right cabinet spring
12	MLEVP0069QSZZ	AD		C	Right cabinet lever
13	GDOR-0003QSZ1	AP		D	Right cabinet door
14	NROLP1060FCZZ	AF		C	U-turn roller
15	MSPRT0229GCAZ	AC		C	FU spring R
16	GCAB-0039QSZB	AX	N	D	Right cabinet
17	GCOV-0043QSZ1	AS		D	OP PWB cover
18	PFILZ0011QSZ1	AQ		B	Ozon filter
19	GCOV-0055QSZZ	AN	N	D	Delivery tray cover
20	GCOV-0054QSZZ	AX	N	D	Delivery rear cover lower
21	GCOV-0052QSZZ	AY	N	D	Power supply cover
22	GCOV-0053QSZ1	AG	N	D	Power supply switch cover
23	CCAB-0082QS01	AP	N	D	Front right cabinet
24	GCAB-0083QSZZ	AW	N	D	Front cabinet
25	LBNDZ0002QSZZ	AC	N	C	Band
26	CCOV-0051QS08	AX	N	D	Front cabinet cover (AR-M277)
	CCOV-0051QS07	AX	N	D	Front cabinet cover (AR-M237)
	CCOV-0051QS02	AX	N	D	Front cabinet cover (AR-M276)
	CCOV-0051QS01	AX	N	D	Front cabinet cover (AR-M236)
27	TLABZ4047FCZZ	AC		C	Enagy star label (U.S.A,Europe,Australia,New Zealand)
	TLAG0401QSZZ	AR		C	Enagy star label (Hong Kong)
35	XHBSE40P10000	AA		C	Screw(4×10)
37	LX-BZ0024QSZZ	AA		C	Screw
38	GCOV-0042QSZZ	AK		D	Rail dummy cover (Except LAG2,4)
39	TCAUA0770FCZZ	AB		D	Servise caution label

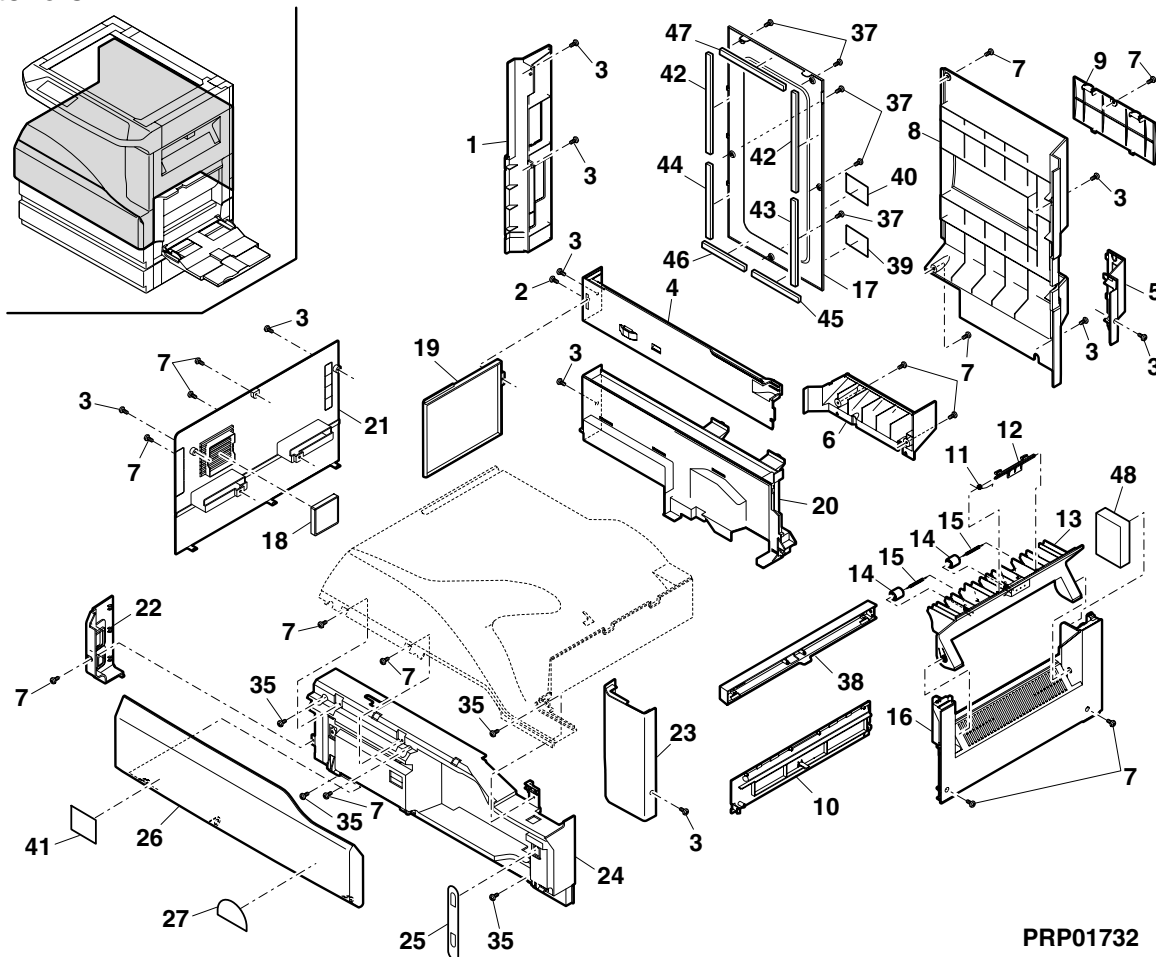
## 2 Exteriors 2

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
40	T L A B Z 0 0 5 8 Q S Z Z	AD		D	Class 1 label [Except U.S.A,Canada,Taiwan,LAG2,Brazil]
41	T L A B Z 4 3 1 2 F C Z Z	AE		D	ECP label (Canada)
42	P G S K - 0 0 1 1 Q S Z Z	AS		C	OP PWB cover cushion A (Taiwan)
43	P G S K - 0 0 1 2 Q S Z Z	AQ		C	OP PWB cover cushion B (Taiwan)
44	P G S K - 0 0 1 3 Q S Z Z	AP		C	OP PWB cover cushion C (Taiwan)
45	P G S K - 0 0 1 4 Q S Z Z	AM		C	OP PWB cover cushion D (Taiwan)
46	P G S K - 0 0 1 5 Q S Z Z	AL		C	OP PWB cover cushion E (Taiwan)
47	P G S K - 0 0 1 6 Q S Z Z	AP		C	OP PWB cover cushion F (Taiwan)
48	P M L T - 0 0 8 8 Q S Z Z	AE	N	C	Right exterior upper cushion R

## 1 Exteriors 1



## 2 Exteriors 2

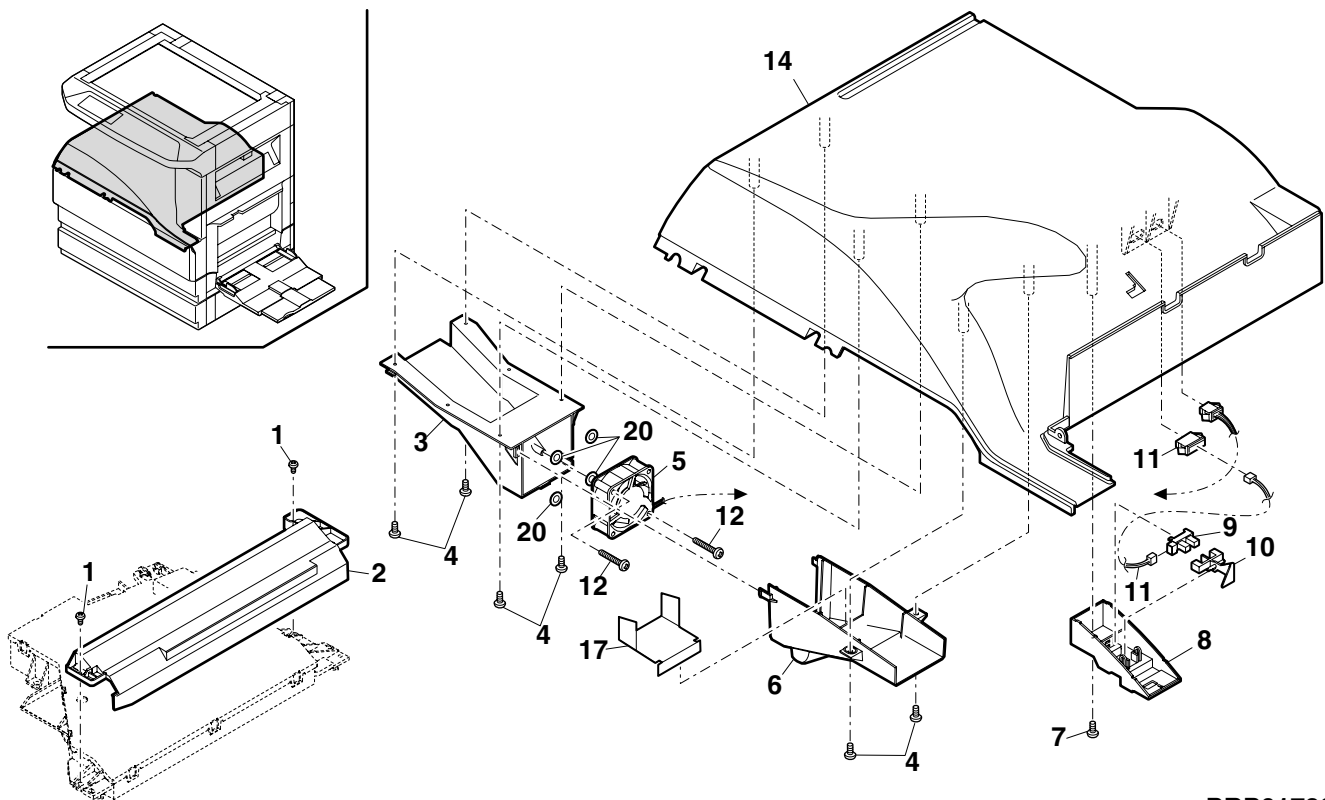




### 3 Delivery tray section

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	XEP S D 3 0 P 1 4 X 0 0	AA		C	Screw(3×14)
2	PC O V P 0 0 8 5 Q S Z Z	AP		D	Exhaust cover
3	P B O X - 0 0 1 6 Q S Z Z	AN	N	C	Exhaust fan box
4	XEBSD30P10000	AA		C	Screw(3×10)
5	NFANP0015QSZZ	BA	N	B	Ozon fan motor
6	PDUC-0004QSZZ	AL		C	Exhaust fan duct
7	XEBSE30P12000	AA		C	Screw(3×12)
8	PBOX-0006QSZZ	AF		D	Delivery sensor BOX
9	VHPGP1S73P+-1	AF		B	Photo sensor(GP1S73P)
10	MLEVP0068QSZZ	AC		C	Delivery tray actuator
11	DH A i - 0 3 7 0 Q S Z Z	AF	N	C	Delivery paper detect sensor harness
12	L X - B Z 0 0 3 0 Q S Z Z	AC		C	Screw(M3×34P)
14	L S O U - 0 0 4 0 Q S Z Z	BB	N	D	Delivery tray
17	PSHEZ0286QSZZ	AE		C	Exhaust fan sheet
20	PSHEZ0283QSZZ	AB		C	Fan motor sheet

### 3 Delivery tray section

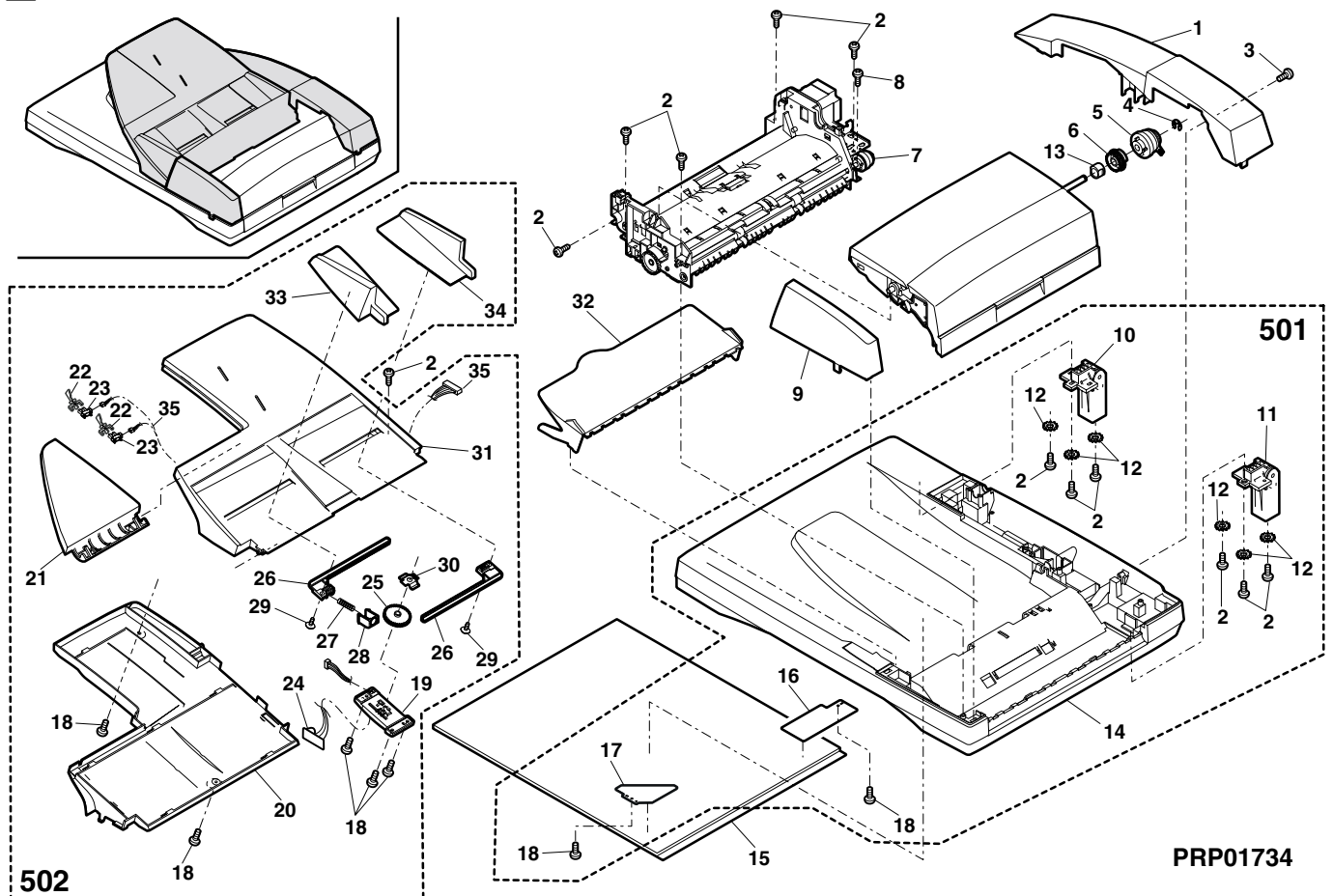


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#### 4 RSPF Exteriors 1(AR-M237/M277)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	GCAB-0075QSZZ	AR	N	D	Rear exterior
2	XEBSE40P12000	AA		C	Screw(4x12)
3	XHBSE30P08000	AA		C	Screw(3x8)
4	LSTPP0016QSZZ	AC	N	C	Stopper
5	PCLC-0017QSZZ	AT	N	B	SPF paper feed clutch
6	NPLYZ0033QSZZ	AD	N	B	Coupling pulley(39P)
7	CGIDM0106RS51	BL	N	E	SPF Transport unit
8	XHBSD30P10000	AA		C	Screw(3x10)
9	GCAB-0074QSZZ	AK	N	D	Front exterior
10	MHNG-0021QSZZ	AX	N	C	SPF hinge L
11	MHNG-0022QSZZ	AX	N	C	SPF hinge R
12	XWVSD40-05000	AA		C	Washer
13	NBRGC0018QSZZ	AD		C	Bearing
14	LSOU-0037QSZZ	BE	N	C	Base tray
15	PCUSS0022QSZZ	AW		C	OC mat
16	PSHEZ0413QSZZ	AD	N	C	OC mat sheet R
17	PSHEZ0077QSZZ	AE		C	OC mat sheet F
18	XEBSE30P08000	AA		C	Screw(3x8)
19	LPLTP0321QSZZ	AE	N	C	Sensor plate
20	GCAB-0078QSZZ	AV	N	D	Original tray lower exterior
21	LSOU-0039QSZZ	AN	N	C	Original tray S
22	MLEVP0098QSZZ	AC	N	C	Original detect actuator
23	VHPGP1S73P+-1	AF		B	Photo sensor(GP1S73P)
24	CPWBF1501FCE2	AS	N	E	SPF VR PWB unit
25	NGERP0168QSZZ	AD	N	C	Gear(36T)
26	NGERR0169QSZZ	AE	N	C	Gear
27	MSPRC0250QSZZ	AC		C	Tray lock spring
28	PTME-0271FCZZ	AD		C	Tray lock pawl
29	XEPSD30P08X00	AA		C	Screw(3x8)
30	MSPRP0315QSZZ	AD	N	C	Regulation plate spring
31	LSOU-0038QSZZ	AW	N	C	Original tray
32	LSOU-0041QSZZ	AP	N	C	Middle tray
33	LPLTP0319QSZZ	AH	N	C	Regulation plate F
34	LPLTP0320QSZZ	AH	N	C	Regulation plate R
35	DHAI-0386QSZZ	AK	N	C	Original tray harness
501	CSOU-0037RS51	BQ	N	E	Base tray unit(Include Block 5-501)
502	CSOU-0038RS51	BF	N	E	Original tray unit

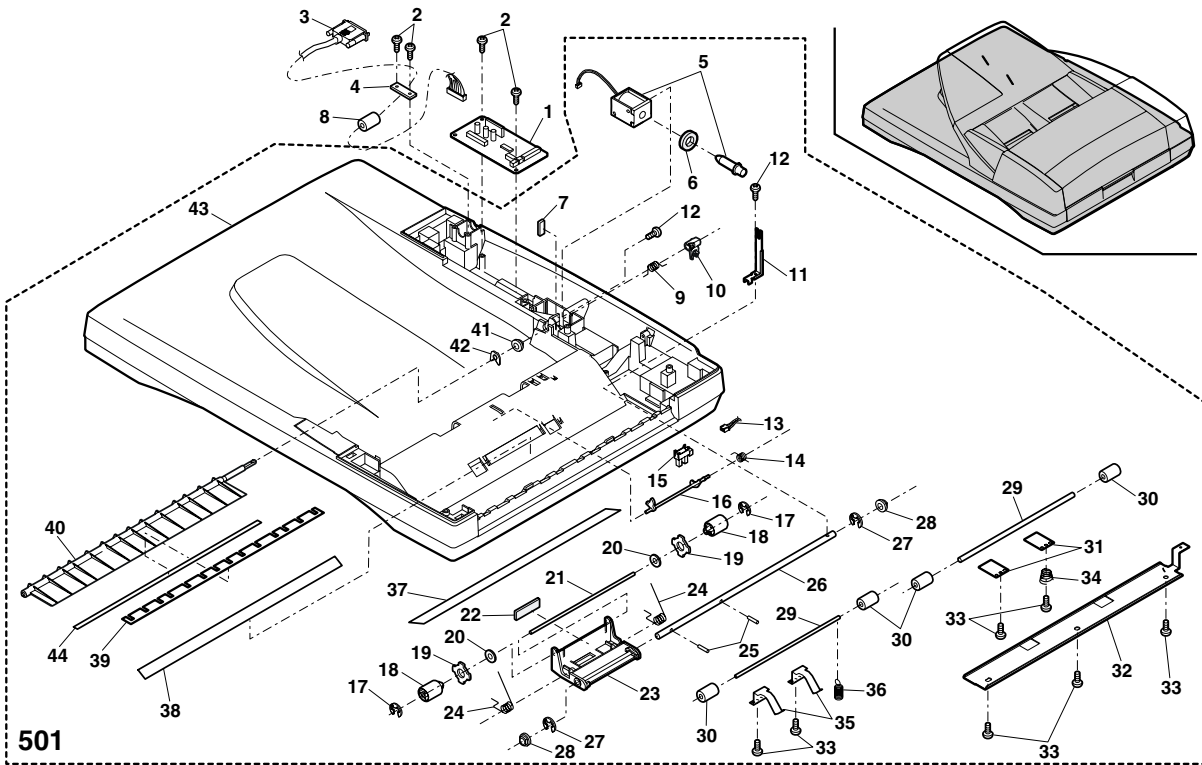
#### 4 RSPF Exteriors 1(AR-M237/M277)



## 5 RSPF Exteriors 2(AR-M237/M277)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	CPWBF0139QSE1	BA	N	E	SPF interface PWB unit
2	XHBSE30P08000	AA		C	Screw(3x8)
3	DHAI-0382QSZZ	BA	N	C	SPF interface harness
4	LPLTM0111QSZZ	AC		C	Reinforce plate earth
5	RPLU-0011QSZ1	AQ		B	Gate solenoid
6	PSP0-0023QSZZ	AB		C	Sound proof Sponge
7	PSP0-0004QSZZ	AB		C	Delivery gate sponge
8	RCORF0026FCZZ	AL		C	Core(TRC-16813)
9	MSPRD0342QSZZ	AD	N	C	Delivery gate spring
10	MLEVP0036QSZZ	AD		C	Delivery gate lever
11	MLEVF0093QSZZ	AE	N	C	Pressure release lever
12	XBBSD30P05000	AA		C	Screw(3x5)
13	DHAI-0388QSZZ	AE	N	C	Paper exit sensor harness
14	MSPRD0211QSZZ	AC		C	Delivery sensor ACT spring
15	VHPGP1S73P+-1	AF		B	Photo sensor(GP1S73P)
16	MLEVP0092QSZZ	AC	N	C	Delivery sensor ACT lever
17	XRESP20-04000	AA		C	E type ring
18	NROLP0011QSZZ	AD		B	Delivery roller
19	PSP0-0020QSZZ	AB		C	Sponge
20	PSHEZ0285QSZZ	AB		C	Sound proof sheet
21	NSFTZ0013QSZZ	AF		C	Delivery shaft
22	PSP0-0003QSZZ	AC		C	Sound proof Sponge
23	LHLDZ0101QSZZ	AE	N	C	Pressure release holder
24	MSPRD0305QSZZ	AC	N	C	Delivery spring
25	LPI NS0327FCZZ	AC		C	SP pin(2x10)
26	NSFTZ0072QSZZ	AP	N	C	Pressure release shaft
27	XRESP50-06000	AA		C	E type ring
28	NBRGM0501FCZZ	AB		C	Metal D
29	NSFTZ0009QSZZ	AE		C	Transport shaft
30	NROLP0010QSZZ	AD		B	Transport roller
31	MSPRP0306QSZZ	AC	N	C	Spring
32	LPLTM0316QSZZ	AH	N	C	Base tray reinforce plate
33	XEBSE30P08000	AA		C	Screw(3x8)
34	MSPRC0307QSZZ	AC	N	C	Earth spring
35	MSPRP0123QSZZ	AD		C	Transport spring
36	MSPRT0308QSZZ	AC	N	C	Transport earth spring
37	PSHEZ0436QSZZ	AD	N	C	Sheet
38	PSHEZ0069QSZZ	AE		C	Base tray sheet
40	LPLTP0117QSZZ	AM		C	Delivery gate
41	NBRGP0041GCZZ	AD		C	Bearing
42	PRNGP0090FCZZ	AA		C	Ring(E5)
43	LSOU-0037QSZZ	BE	N	C	Base tray
501	CSOU-0037RS51	BQ	N	E	Base tray unit(include Block 4-501)

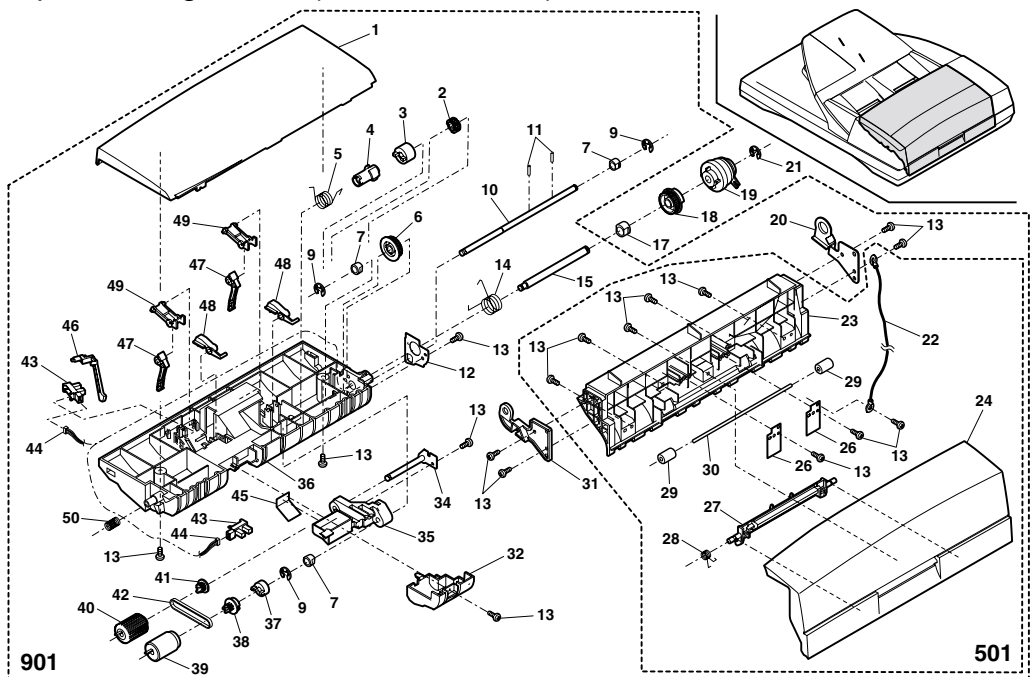
## 5 RSPF Exteriors 2(AR-M237/M277)



## 6 RSPF Paper feeding section(AR-M237/M277)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	GCAB-0076QSZZ	AP	N	D	Open and shut exterior
2	NGERH0166QSZZ	AC	N	C	Paper feed shaft gear(20T)
3	PCLC-0316FCZ1	AR		B	Torque limiter
4	MLNKP0001QSZZ	AD	N	C	Pickup link
5	MSPRD0309QSZZ	AC	N	C	Pickup arm spring
6	NGERH0167QSZZ	AD	N	C	Paper feeding drive gear(32T)
7	NBRGM0096FCZ1	AC		C	Bearing
9	XRESP50-06000	AA		C	E type ring
10	NSFTB0075QSZZ	AF	N	C	Paper feed roller shaft
11	XPSSP20-07000	AA		C	Spring pin(φ2-7)
12	LPLTM0318QSZZ	AC	N	C	Paper feeding earth plate
13	XEBSE30P08000	AA		C	Screw(3×8)
14	MSPRD0314QSZZ	AD	N	C	JAM release spring R
15	NSFTZ0074QSZZ	AF	N	C	PF roller shaft
17	NBRGC0018QSZZ	AD		C	Bearing
18	NPLYZ0033QSZZ	AD	N	B	Coupling pulley(39P)
19	PCLC-0017QSZZ	AT	N	B	SPF paper feed clutch
20	MARMM0047QSZZ	AE	N	C	U-turn PG arm R
21	LSTPP0016QSZZ	AC	N	C	Stopper
22	DHAI-0390QSZZ	AC	N	C	U-turn earth harness
23	PGIDM0105QSZZ	AQ	N	C	U-turn guide
24	GCAB-0077QSZZ	AQ	N	D	U-turn PG exterior
26	MSPRP0311QSZZ	AC	N	C	PS spring
27	PTME-0029QSZZ	AE	N	C	U-turn PG lock pawl
28	MSPRD0310QSZZ	AC	N	C	U-turn PG lock spring
29	NROLP0010QSZZ	AD		B	Transport roller
30	NSFTZ0009QSZZ	AE		C	Transport shaft
31	MARMP0046QSZZ	AD	N	C	U-turn PG arm F
32	PCOVP0094QSZZ	AD	N	C	Maintenance cover
34	CSFTB0073QS01	AF	N	E	Pickup roller shaft ASSY'
35	MARMP0044QSZZ	AF	N	C	Pickup arm
36	LFRM-0069QSZZ	AQ	N	C	Paper feeding frame
37	NCPL-0049FCBZ	AT		C	Coupling
38	NPLYZ0035QSZZ	AD	N	B	Paper feeding roller pulley(16P)
39	NROLR1311FCZZ	AN		B	Paper feed separation roller
40	NROLR1312FCZZ	AN		B	Pickup roller
41	NPLYZ0034QSZZ	AD	N	B	Pick up roller pulley(16P)
42	NBLTT0033QSZZ	AF	N	B	Drive belt
43	VHPGP1S73P+-1	AF		B	Photo sensor(GP1S73P)
44	DHAI-0387QSZZ	AH	N	C	PFUN harness
46	MLEVP0097QSZZ	AC	N	C	Original detect actuator
47	LSTPP0015QSZZ	AC	N	C	Stopper
48	MLEVP0096QSZZ	AC	N	C	Stopper release lever
49	MARMP0045QSZZ	AC	N	C	Stopper arm
50	MSPRD0313QSZZ	AC	N	C	JAM release spring F
501	CCAB-0077RS51	AZ	N	E	U-turn PG uint
	(Unit)				
901	CFRM-0069RS51	BK	N	E	Paper feeding unit

## 6 RSPF Paper feeding section(AR-M237/M277)

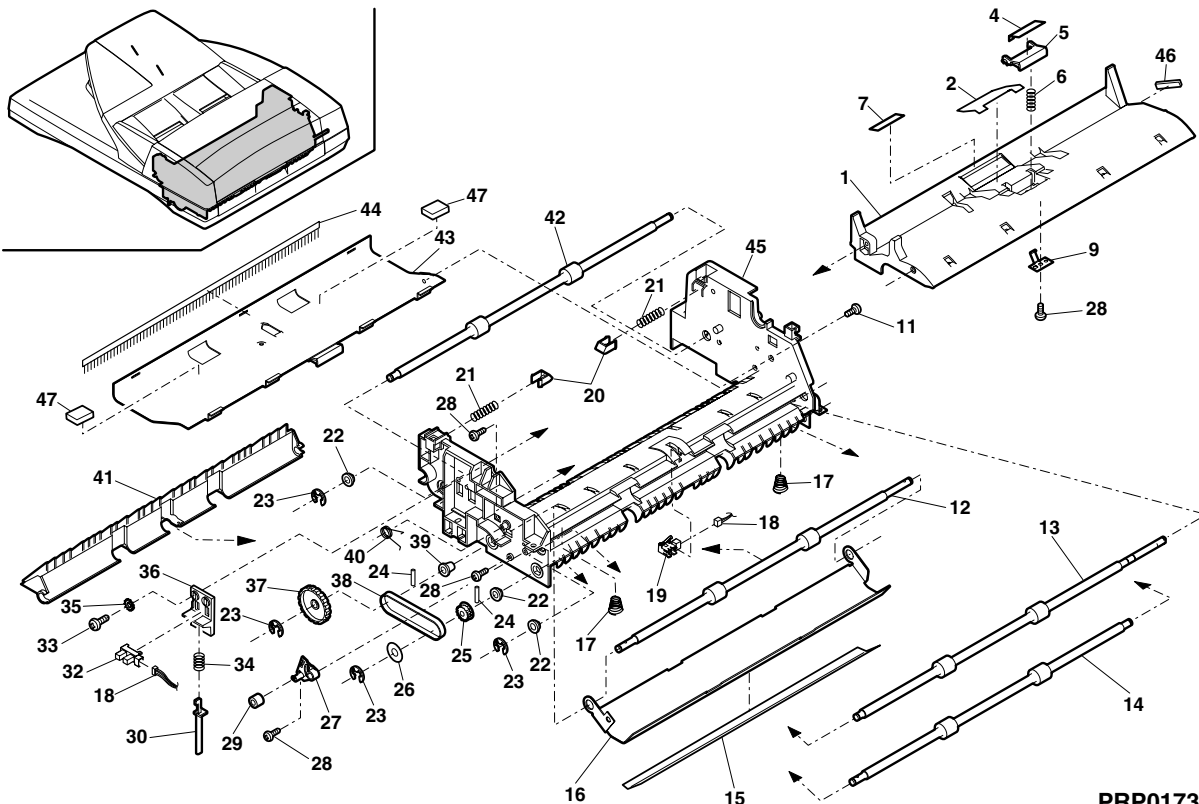


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# 7 RSPF Transport section 1(AR-M237/M277)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	PGIDM0107QSZZ	AP	N	C	Paper feeding guide
2	PSHEZ0452QSZZ	AF	N	C	Front separate sheet
4	PSHEZ0423QSZZ	AP	N	C	Separate sheet
5	LPLTP0328QSZZ	AC	N	C	SPF separate plate
7	PSHEZ0451QSZZ	AC	N	C	Sound proof sheet
9	LPLTM0327QSZZ	AD	N	C	Silence plate
11	XHBSE30P08000	AA		C	Screw(3×8)
12	NROLR0096QSZZ	AR	N	B	Transport roller
13	NROLR0094QSZZ	AR	N	B	PS roller
14	NROLR0095QSZZ	AR	N	B	Read roller
15	PSHEZ0415QSZZ	AE	N	C	White sheet
16	LPLTM0325QSZZ	AH	N	C	Transport plate
17	MSPRC0063QSZZ	AB		C	Delivery paper guide spring
18	DHAI-0384QSZZ	AR	N	C	RSPF harness
19	RDCT0006QSZZ	AL		B	Inlet detect sensor
20	PTME-0030QSZZ	AC	N	C	Open and shut lock pawl
22	NBRGM0501FCZZ	AB		C	Metal D
23	XRESP50-06000	AA		C	E type ring
24	XPSSP20-09000	AA		C	Spring pin(φ2-9)
25	NPLYZ0019QSZZ	AE		B	PS pulley
26	PSHEP3029FCZZ	AA		C	Flange sheet DUP2
27	LHLDZ0102QSZZ	AC	N	C	Tension holder F
28	XEBSE30P08000	AA		C	Screw(3×8)
29	NKOM-0007QSZZ	AC	N	C	Tension roller
30	MLEVP0095QSZZ	AD	N	C	Book sensor actuator
32	VHPGP1S73P+-1	AF		B	Photo sensor(GP1S73P)
33	XEBSE40P14000	AA		C	Screw(4×14)
34	MSPRC0153QSZZ	AB		C	Book sensor spring
35	XWVSD40-05000	AA		C	Washer
36	LPLTP0131QSZZ	AD		C	Book sensor attachment plate
37	JKNBZ0009QSZZ	AE	N	D	JAM release knob(24P)
38	NBLTT0036QSZZ	AF	N	B	Belt(B79MXL4.0)
39	NBRGC0017QSZZ	AC		C	Bearing
40	MSPRD0316QSZZ	AC	N	C	Tension spring F
41	LPLTP0324QSZZ	AH	N	C	Reverse gate plate
42	NROLR0097QSZZ	AR	N	B	Delivery roller
43	LPLTM0326QSZZ	AM	N	C	Paper feeding PG reinforce plate
44	PBRSS0008QSZZ	AH		B	Discharge brush
45	PGIDM0106QSZZ	AS	N	C	Transport R guide
46	PSHEZ0454QSZZ	AB	N	C	PF PG cushion R
47	PSHEZ0455QSZZ	AD	N	C	PF PG sound proof cushion
501	CGIDM0106RS51	BL	N	E	SPF Transport unit(Include Block 8-501,Without No.9,10,18)

# 7 RSPF Transport section 1(AR-M237/M277)

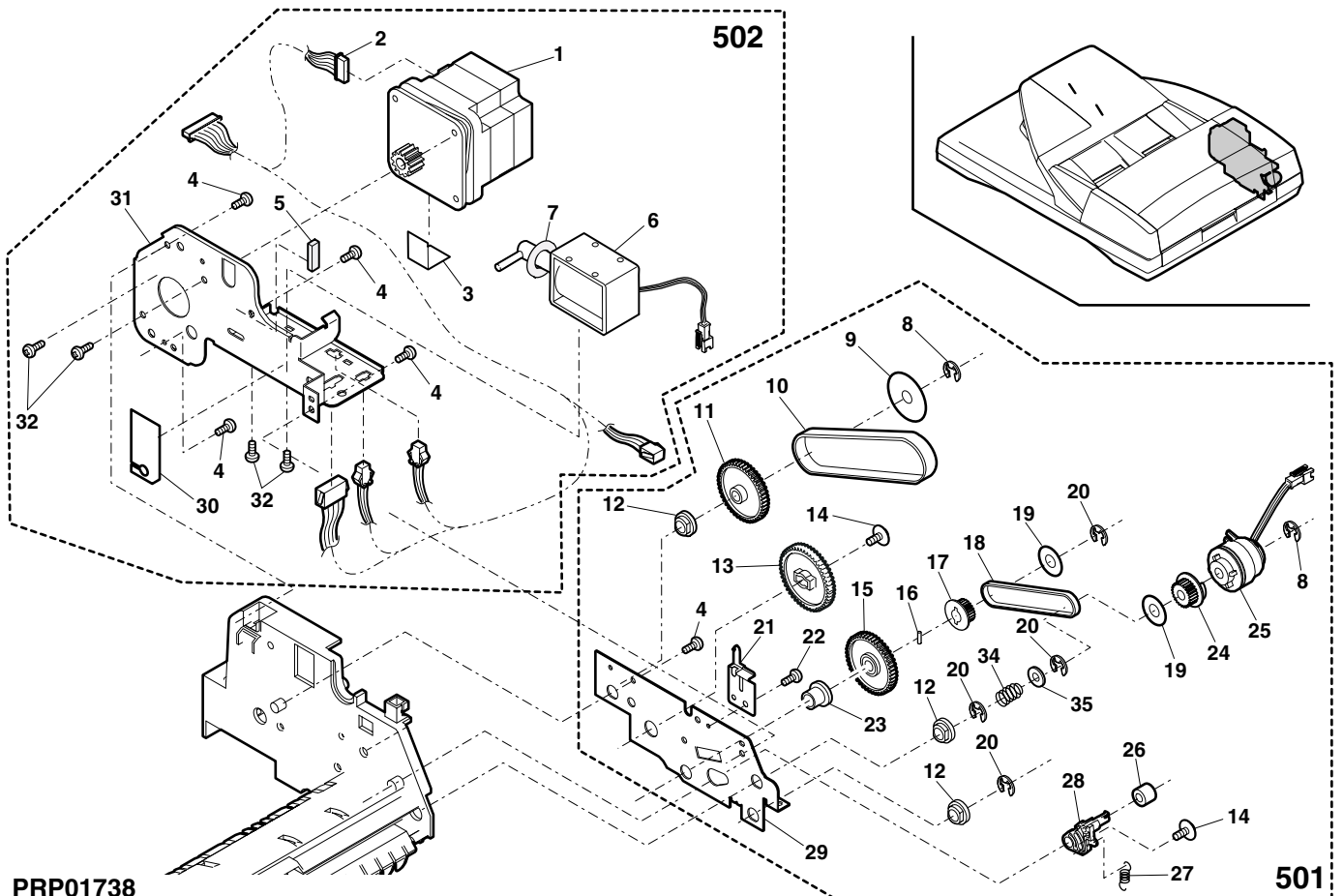


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# 8 RSPF Transport section 2(AR-M237/M277)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	RMOTS0043QSZZ	BG	N	B	SPF motor
2	DHAI-0384QSZZ	AR	N	C	RSPF harness
3	PTPE-0018QSZZ	AC		C	Motor earth tape
4	XEBSE30P08000	AA		C	Screw(3x8)
6	RPLU-0015QSZ1	AR		B	Pressure release solenoid
7	PSPO-0022QSZZ	AB		C	Sound proof Sponge
8	XRESP40-06000	AA		C	E type ring
9	PSHEZ0414QSZZ	AB	N	C	Flange sheet
10	NBLTT0034QSZZ	AF	N	B	Belt(48S2M244)
11	NGERH0170QSZZ	AD	N	C	Gear(48T/43P)
12	NBRGM0501FCZZ	AB		C	Metal D
13	NGERH0116QSZ1	AD		C	Gear(48T/25P)
14	XEPSD30P08X00	AA		C	Screw(3x8X)
15	NGERH0117QSZZ	AK		C	Gear(48T)
16	XPSSP20-09000	AA		C	Spring pin(φ2-9)
17	NPLYZ0019QSZZ	AE		B	PS pulley
18	NBLTT0035QSZZ	AE	N	B	Belt(B86MXL4.0)
19	PSHEP3029FCZZ	AA		C	Flange sheet DUP2
20	XRESP50-06000	AA		C	E type ring
21	MSPRP0312QSZZ	AD	N	C	U-turn earth spring
22	XHBSE30P08000	AA		C	Screw(3x8)
23	NBRGC0017QSZZ	AC		C	Bearing
24	NPLYZ0018QSZZ	AE		B	PS coupling pulley
25	PCLC-0018QSZZ	AT	N	B	PS clutch
26	NKOM-0007QSZZ	AC	N	C	Tension roller
27	MSPRT0317QSZZ	AC	N	C	Tension spring R
28	LHLDZ0103QSZZ	AC	N	C	Tension holder R
29	LPLTM0322QSZZ	AF	N	C	Transport earth plate
31	LPLTM0323QSZZ	AG	N	C	Motor attachment plate
32	XBBSD30P05000	AA		C	Screw(3x5)
34	MSPRC0346QSZZ	AC	N	C	PS Brake spring
501	CGIDM0106RS51	BL	N	E	SPF Transport unit(Include Block 7-501)
502	CPLTM0323RS51	AY	N	E	Drive unit(Without No.4)

# 8 RSPF Transport section 2(AR-M237/M277)



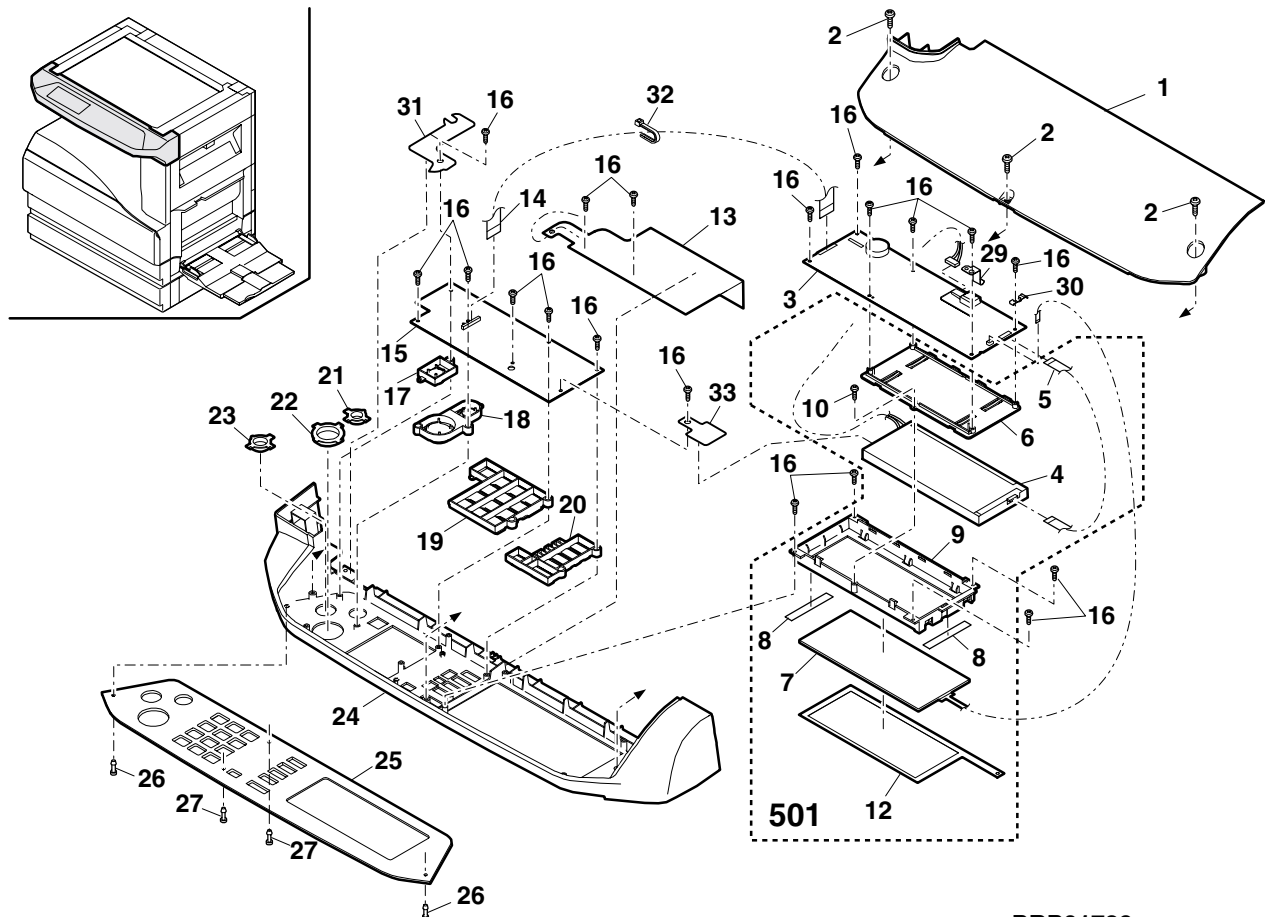
PRP01738



## 9 Operation panel unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	GCOV-0057QSZZ	AT	N	D	Operation panel cover
2	XEBSE40P10000	AA		C	Screw(4×10)
3	CPWBN0146QSE2	BU	N	E	OPU PWB (U.S.A,Other Countries)
4	VVLLM065HB1-1	CB		E	LCD module
5	DHAI-0361QSZZ	AE	N	C	LCD M harness
6	PCOVP0095QSZZ	AG	N	C	LCD cover
7	HPNLH0030QSZZ	BC	N	D	Touch panel(A126)
8	PTPE-0052QSZZ	AA	N	C	Touch panel fixing tape
9	LHLDZ0105QSZZ	AG	N	C	LCD holder
10	XEBSE30P08000	AA		C	Screw(3×8)
12	PSHEZ0424QSZZ	AL	N	C	Anti static electricity sheet
13	PSHEZ0425QSZZ	AE	N	C	PWB protect sheet
14	DHAI-0362QSZZ	AD	N	C	Key PWB harness
15	CPWBF0145QSE1	AX	N	E	KEY PWB
16	XEBSE30P08000	AA		C	Screw(3×8)
17	CBTN-0069QS02	AF	N	C	CA key
18	CBTN-0068QS01	AF	N	C	Start key AS
19	CBTN-0070QS01	AN	N	C	Ten key
	CBTN-0071QS01	AM	N	C	Mode key AS (U.S.A,Other Countries)
20	CBTN-0071QS02	AM	N	C	Mode key AS [No FAX] (Algeria,Iran,Egypt,Syria,Tunisa,Nigeria,West Africa, Morocco,Jordan,Lebanon,Special Country,Brazil,LAG2,4)
21	CFILW0284FC02	AF	N	D	C key smoke AS
22	CFILW0282FC02	AK	N	D	Copy key smoke AS
23	CFILW0283FC02	AH	N	D	CA key smoke AS
24	GCAB-0086QSZZ	AV	N	D	Operation panel exterior
25	CPNLH0029QS05	AY	N	D	Main panel (Except AR-M276/M236 Germany)
	CPNLH0029QS06	AY	N	D	Main panel (AR-M276/M236 Germany)
26	LPINS0014QSCZ	AF		C	Fixing pin D
27	LPINS0014QSBZ	AF		C	Fixing pin E
29	LPLTM0346QSZZ	AC	N	C	LCD earth plate
30	LPLTM0331QSZZ	AC	N	C	PWB earth plate
32	RCORF0002QSZZ	AE		C	Core(HF57SH35*1)
501	CHLDZ0105RS51	AU	N	E	LCD unit
	(Unit)				
901	CPNLH0029RS55	BY	N	D	Operation panel (U.S.A,Other Countries)

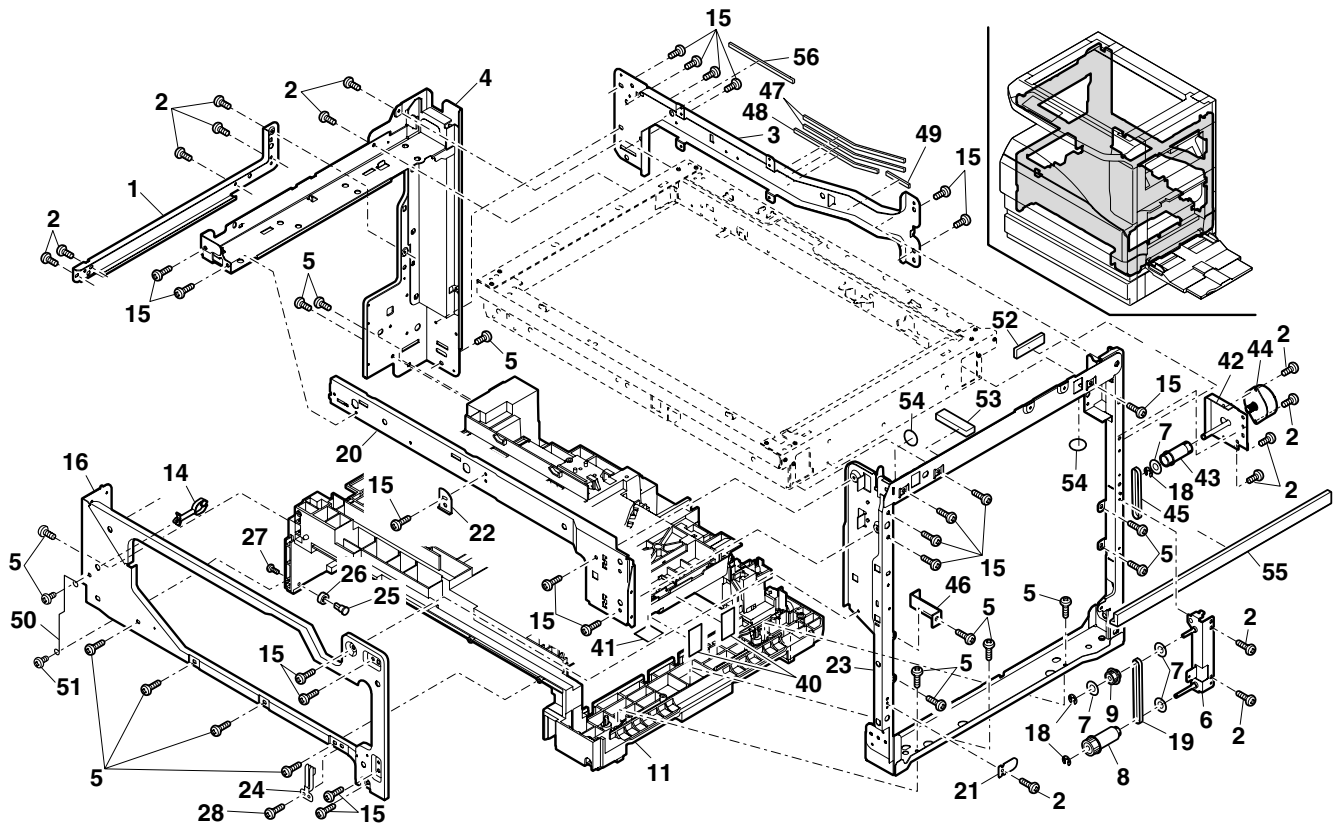
## 9 Operation panel unit



# 10 Frame section

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	LPLTM0163QSZZ	AK		C	Left reinforce plate lower
2	XHBSE30P08000	AA		C	Screw(3x8)
3	LPLTM0232QSZ1	AU	N	C	Frame support plate R
4	CFRM-0043QS02	AX		D	Corner frame RL
5	XEBSD40P10000	AA		C	Screw(3x10)
6	CPLTM0168QS02	AK	N	C	DUP drive idle plate
7	PSHEZ0065QSZZ	AB		C	Pully flange sheet
8	NGERH0173QSZZ	AD	N	C	DUP gear
9	NPLYZ0036QSZZ	AD	N	C	DUP pulley gear
11	LDAi-0023QSZB	BH	N	D	Base plate
14	LHLDW1061FCZZ	AB		C	Harness holder(HL-18-0)
15	XHBSE40P10000	AA		C	Screw(4x10)
16	LPLTM0333QSZZ	AX	N	C	Frame support plate F
18	XRESP40-06000	AA		C	E type ring
19	NBLTT0026QSZZ	AF		B	DUP drive belt
20	LPLTM0165QSZ1	AS	N	C	Front support plate
21	PCOV0066QSZZ	AC		D	Interlock cover
22	LPLTM0166QSZZ	AC		C	Front support adjusting plate
23	CFRM-0044QS02	BB		C	Right frame unit
24	LPLTM0251QSZZ	AE		C	PS earth plate
25	NSFTZ0048QSZZ	AG		C	Cassette collar shaft
26	NKOM-0005QSZZ	AC		C	Cassette guide collar
27	XBPSD30P08KS0	AA		C	Screw(3x8KS)
28	XHBSE30P06000	AA		C	Screw(3x6)
40	PSHEZ0333QSZZ	AC		C	PS front sheet
41	PSHEZ0325QSZZ	AB		C	Frame lower mylar
42	CPLTM0342QS01	AH	N	C	DU motor fixing plate ASSY'
43	NGERH0174QSZZ	AD	N	C	DUP drive gear
44	RMOTS0045QSZZ	AR	N	B	DUP 2 motor
45	NBLTT0038QSZZ	AF	N	B	DUP drive belt TL
46	LPLTM0332QSZZ	AE	N	C	Fusing unit earth plate
47	PGSK-0021QSZZ	AQ		C	Frame rainforce cushion A
48	PGSK-0022QSZZ	AP		C	Frame rainforce cushion B
49	PGSK-0023QSZZ	AH		C	Frame rainforce cushion C
50	MSPRD0276QSZZ	AS		C	Front earth spring
51	XEBSE40P12000	AA		C	Screw(4x12)
52	PMLT-0092QSZZ	AB	N	C	Frame RR cushion
53	PMLT-0089QSZZ	AC	N	C	Right frame cushion F
55	PMLT-0091QSZZ	AD	N	C	Right frame cushion A
56	PGSK-0026QSZZ	AQ	N	C	OP holder cushion

# 10 Frame section



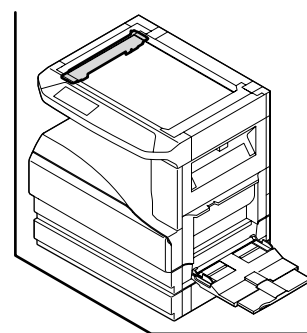
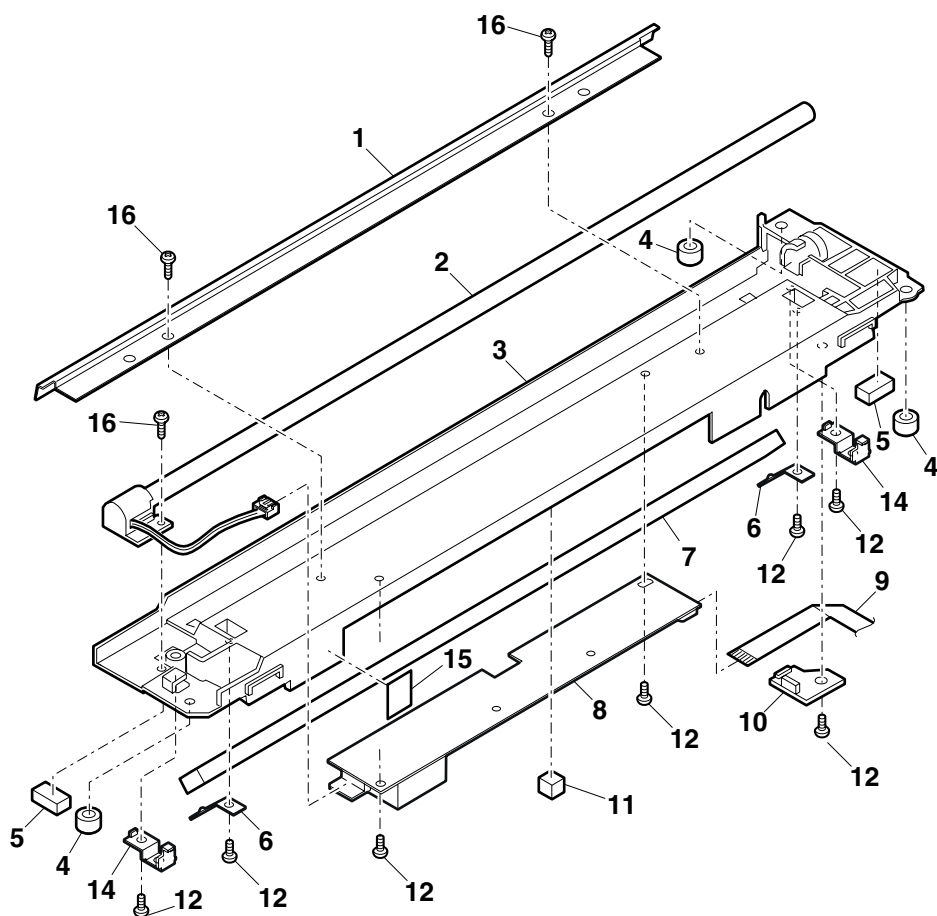
PRP01740



# 11 Lump unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	PREFL0004QSZZ	AP		D	Reflector
2	RLMPU0012QSZZ	BG		B	Lump
3	LHLDZ0047QSZZ	AW		C	Base
4	MSLi-0138FCZZ	AC		C	Slider
5	PCUSU0203FCZZ	AE		C	Protection cushion
6	MSPRP0145QSZZ	AF		C	Spring
7	PMiR-0009QSZZ	AS		B	1st mirror
8	DUNTK0034QSZZ	BC		C	Inverter unit
9	DHAI-0200QSZZ	AS		C	CL harness
10	LFIX-0009QSZZ	AF		D	Harness fixing
11	PCUSF0334FCZZ	AP		C	Cushion
12	XEPSD30P06000	AA		C	Screw(3×6)
14	LPLTM4715FCZ1	AF		C	Wire fixing plate
15	TCAUH0933FCZZ	AB		C	High temperature caution label
16	XEPSD40P06000	AA		C	Screw(4×6)
	(Unit)				
901	CREFL0004QS33	BL		E	Copy lamp unit

# 11 Lump unit

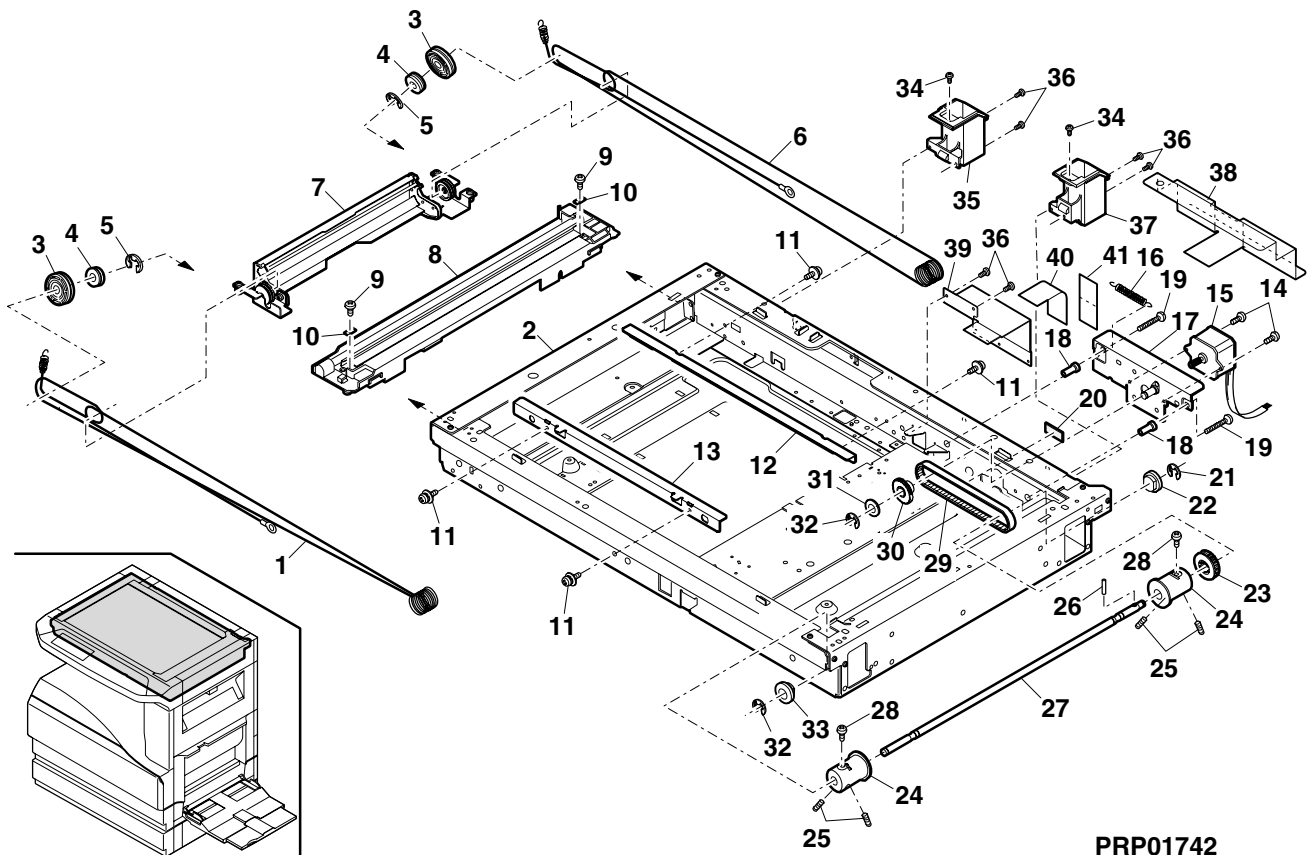


PRP01741

## 12 Optical frame 1

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	PWIR-0006QSZZ	AQ		C	MB wire F
2	CDAIU0012QS11	BH	N	D	Optical frame
3	NPLYZ0016QSZZ	AF		C	Pulley
4	NPLYZ0006QSZZ	AD		C	L pulley
5	XRESP40-05000	AA		C	E type ring
6	PWIR-0005QSZ1	AQ		C	MB wire R
8	CREFL0004QS33	BL		E	Copy lamp unit
9	XBPSD40P06K00	AA		C	Screw(4x6K)
10	LHLDZ0056QSZZ	AC		C	Wire holder
11	LX-BZ0004QSZZ	AB		C	Screw
12	LRALM0007QSZ1	AG		C	MB-B rail R
13	LRALM0006QSZZ	AG		C	MB-B rail F
14	XBPSD30P05K00	AA		C	Screw(3x5K)
15	RMOTP0027QSZZ	BG		B	Mirror motor
16	MSPRC0040QSZZ	AB		C	MB drive spring
17	CPLTM0084QS02	AK		C	Mirror motor fixing plate
18	PGUMS0002QSZZ	AL		C	Protection rubber
19	XBPSD40P16KS0	AA		C	Screw(4x16KS)
20	PCUSG0190FCZ1	AB		C	Table glass cushion
21	XRESP50-06000	AA		C	E type ring
22	NBRGP0012QSZZ	AC		C	Winder bearing F
23	NPLYZ0004QSZZ	AG		C	Winder drive shaft pulley
24	NPLYZ0003QSZZ	AM		C	Winder pulley
25	LX-BZ0049FCZZ	AB		C	Screw
26	XPSSJ30-12000	AB		C	Spring pin(φ3-12)
27	NSFTZ0028QSZ1	AS	N	C	Winder drive shaft
28	LX-BZ0324FCZZ	AA		C	Screw
29	NBLTT0002QSZZ	AH		B	Winder drive belt
30	NGERH0027QSZZ	AH		C	Mirror motor idle gear
31	LX-WZ0119FCZZ	AA		C	Washer
32	XRESP70-08000	AA		C	E type ring
33	NBRGP0011QSZZ	AC		C	Winder bearing F
34	LX-BZ0024QSZZ	AA		C	Screw
35	PGIDM0108QSZZ	AH	N	C	Hinge guide L
36	XHBSE30P08000	AA		C	Screw(3x8)
37	PGIDM0109QSZZ	AH	N	C	Hinge guide R
38	PSHEM0342QSZZ	AU		C	MCU earth sheet (Taiwan)
39	PGIDH0095QSZZ	AH		C	CCD harness guide (Taiwan)
40	PTPE-0036QSZZ	AF		C	CCD harness fixing tape (Taiwan)
41	PTPE-0032QSZZ	AK		C	CCD cable shield tape (Taiwan)

## 12 Optical frame 1



PRP01742

### 13 Optical frame 2

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	PCOVP0075QSZZ	AE		D	Harness cover
2	XNESD30-24000	AA		C	Nut(M3)
3	VHPGP2D07/-1	BA		B	Photo sensor(GP2D07) [AB Series]
	VHPGP2D03/-1	BA		B	Photo sensor(GP2D03) [Inch Series]
4	DHAI-0346QSZZ	AP	N	C	Optical sensor harness [AB Series]
	DHAI-0347QSZZ	AN	N	C	Optical sensor harness [Inch Series]
5	LHLDW1009ACZZ	AA		C	Clamp
6	XBBSF30P08000	AA		C	Screw(3x8)
7	CPWBF0083QSE5	AU		E	Sensor PWB
8	CDAIU0012QS11	BH	N	D	Optical frame
9	PCUSG0190FCZ1	AB		C	Table glass cushion
10	XHBSD30P06000	AA		C	Screw(3x6)
11	RSNSZ0001QSZZ	BA		B	Photo sensor(GP2D071) [AB Series]
	VHPGP2D032/-1	BA		B	Photo sensor(GP2D032) [Inch Series]
12	XBPSD30P08X00	AA		C	Screw(3x8)
13	LPLTP0230QSZZ	AF		C	Open/close sensor fixing plate
14	VHPGP1S73P+-1	AF		B	Photo sensor(GP1S73P)
15	MSPRD0232QSZZ	AB		C	Return spring
16	MLEVP0077QSZZ	AC		C	Open/Close actuator
17	LCRA-0002QSZZ	AC		C	Mini clump
18	TLABH0461QSZZ	AG		C	Clean caution label (U.S.A,Canada)
19	LHLDZ0104QSZZ	AD	N	C	CL lead holder
20	PSHEZ0218QSZZ	AC		C	Edge protect mylar A
21	PSHEZ0217QSZZ	AC		C	CCD harness protect mylar B
22	PSHEZ0448QSZZ	AA	N	C	Optical base plate bottom mylar B
24	PCASZ0010QSZZ	AL		D	Durk box
25	LHLDZ7021XCZZ	AD		C	Holder(FRH-12)
26	RCORF0002QSZZ	AE		C	Core(HF57SH35*1)
28	CLNS-0003RS54	BQ	N	E	Lens unit
29	LX-BZ0004QSZZ	AB		C	Screw
30	DHAI-0345QSZZ	AG	N	C	CCD harness
31	PSHEZ0108QSZZ	AC		C	Optical base plate bottom mylar A
32	PSHEZ0219QSZZ	AC		C	Edge protect mylar B
33	LX-BZ0031GCZZ	AB		C	Screw
34	PSHEZ0254QSZZ	AC		C	Optical bottom mylar
38	PSHEZ0273QSZZ	AB		C	CCD harness protect mylar A
39	PGSK-0008QSZZ	AF		C	Gasket
40	XWHS D40-08100	AA		C	Washer
41	PMLT-0094QSZZ	AC	N	C	Cushion ORG
43	PSHEZ0420QSZZ	AC		C	OP harness protect mylar
44	PTPE-0051QSZZ	AC		C	OP harness protect tape
45	PSHEZ0426QSZZ	AB		C	OP harness protect mylar B

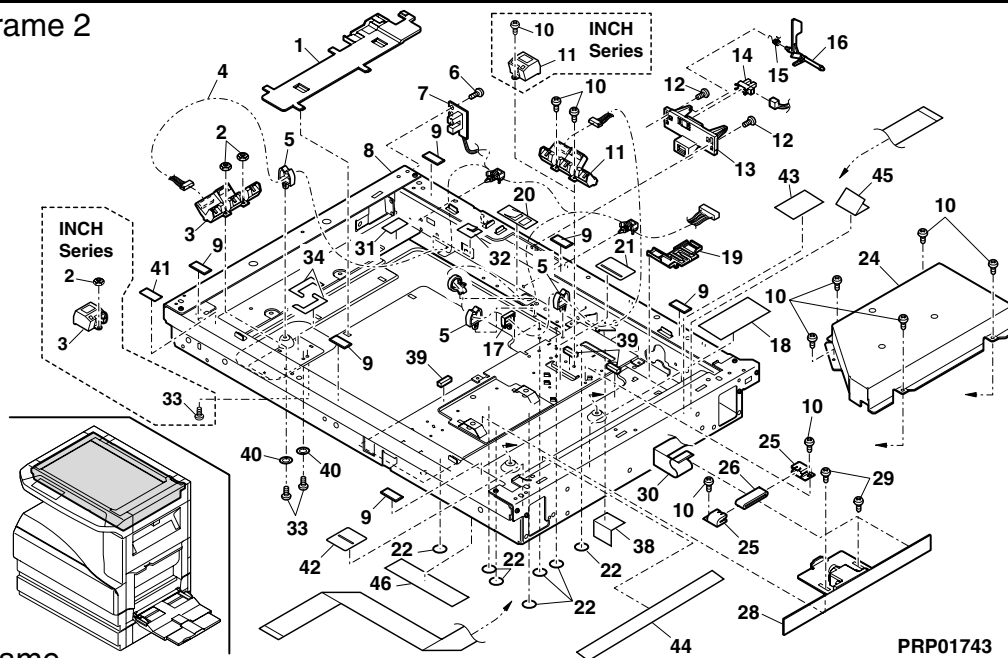
### 14 Middle frame

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	DUNTK0384RSZZ	BW	N	E	LSU unit
2	XEPSD30P14X00	AA		C	Screw(3x14X)
5	MARMP0025QSZZ	AD		C	Separator pawl arm
6	XEBSD30P10000	AA		C	Screw(3x10)
7	CHAI-0356RS51	AL	N	C	MC harness
8	CHAI-0357RS51	AL	N	C	GBMCFB harness
9	LHLDZ0057QSZZ	AH		C	High voltage terminal holder A
10	DHAI-0373QSZZ	AS	N	C	DV/LSU interface harness
11	MSPRD0190QSZ1	AD		C	High voltage terminal saw teeth
12	MSPRD0191QSZ1	AD		C	High voltage terminal grid L
13	MSPRD0192QSZ1	AD		C	High voltage terminal case L
14	DHAI-0353QSZZ	AH	N	C	ILSW I/F harness 2
15	LX-BZ0020QSZZ	AB		C	Screw
16	LPLTM0149QSZZ	AD		C	Connector fixing plate
18	XRESP50-06000	AA		C	E type ring
19	PLC-0006QSZZ	AU		B	PS clutch
27	XBBSD30P05000	AA		C	Screw(3x5)
28	LHLDZ0085QSZZ	AE		C	TR terminal holder
29	LPLTM0248QSZZ	AE		C	TR terminal plate
30	NROLR0089QSZZ	AQ		C	PS roller
31	NBRGC0018QSZZ	AD		C	Bearing
32	PCOVP0062QSZZ	AD		D	ILSW cover
33	LSTPP0010QSZZ	AD		C	Right door stopper
34	MSPRC0220QSZZ	AB		C	Stopper spring
35	MLEVP0071QSZZ	AD		C	ILSW lever
36	CSW-M0007RS56	AP	N	B	Inter lock switch
37	LHLDZ0065QSZ1	AF		C	ILSW holder
39	MSPRT0221QSZZ	AB		C	ILSW spring
40	JKNBZ0006QSZZ	AD		C	PS knob
41	XBPSD30P08KS0	AA		C	Screw(3x8KS)
42	XBPSD30P06ES0	AA		C	Screw(3x6ES)
43	LFRM-0037QSZZ	BA	N	D	Middle frame
44	XRESP60-08000	AA		C	E type ring

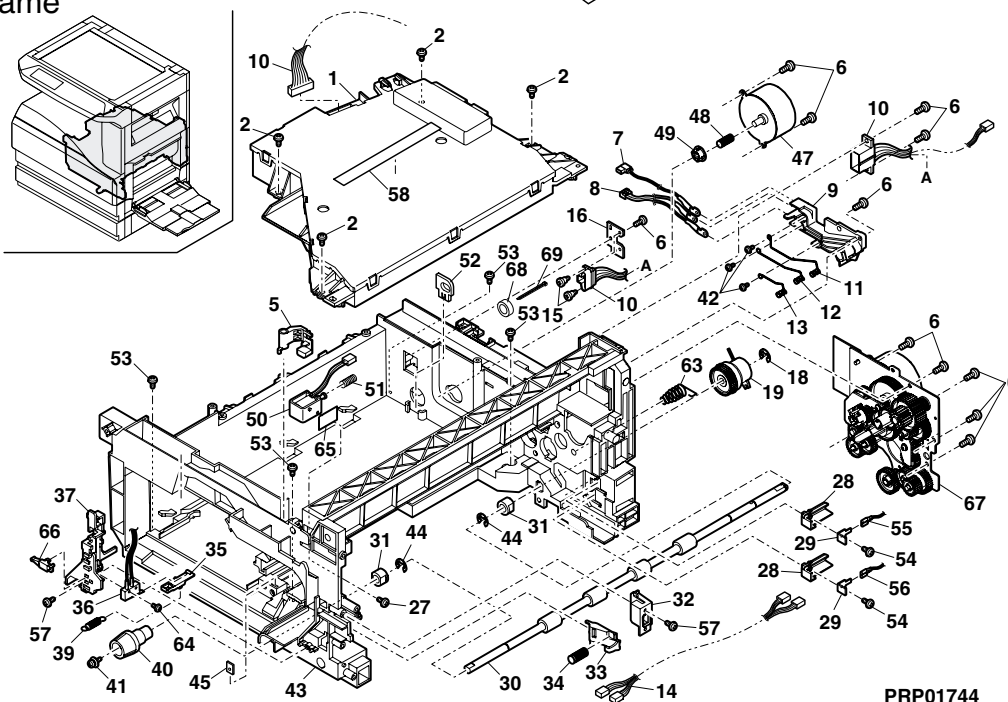
# 14 Middle frame

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
45	LPLTM0194QSZZ	AC		C	DV fixing plate
47	RMOTD0023QSZZ	AZ		B	Toner motor
48	MSPRC0195QSZZ	AB		C	Hopper spring
49	NCPL-0011QSZZ	AC		C	Hopper cupring
50	RPLU-0024QSZZ	AM		B	Pawl solenoid
51	MSPRC1318FCZ1	AA		C	Spring B
52	LPI NS0300FCZZ	AD		C	DV guide pin (U.S.A,Other countries)
	LPI NS0301FCZZ	AD		C	DV guide pin (Europe,Australia,New Zealand)
53	XEBSD40P10000	AA		C	Screw(3x10)
54	XEBSD30P06000	AA		C	Screw(3x6)
55	DHAI-0354QSZZ	AG	N	C	TC harness
56	DHAI-0355QSZZ	AG	N	C	BC harness
57	XEBSD30P10000	AA		C	Screw(3x10)
58	TCAUH0007QSZZ	AD		C	Laser caution laber
63	MSPRC0271QSZZ	AC		C	Earth Spring
64	XEPSD23P12000	AA		C	Screw(3x12)
65	PSHEZ0394QSZZ	AB		C	Drum solenoid silence material
66	QSW-B0017QSZZ	AF		B	Tray detect switch
67	CPLTM0160RS53	BN	N	E	Drive unit
68	RCORF0013QSZZ	AG		C	LSU harness core (Taiwan)
69	LBNDJ0013FCZ1	AE		C	Cable band (Taiwan)

# 13 Optical frame 2



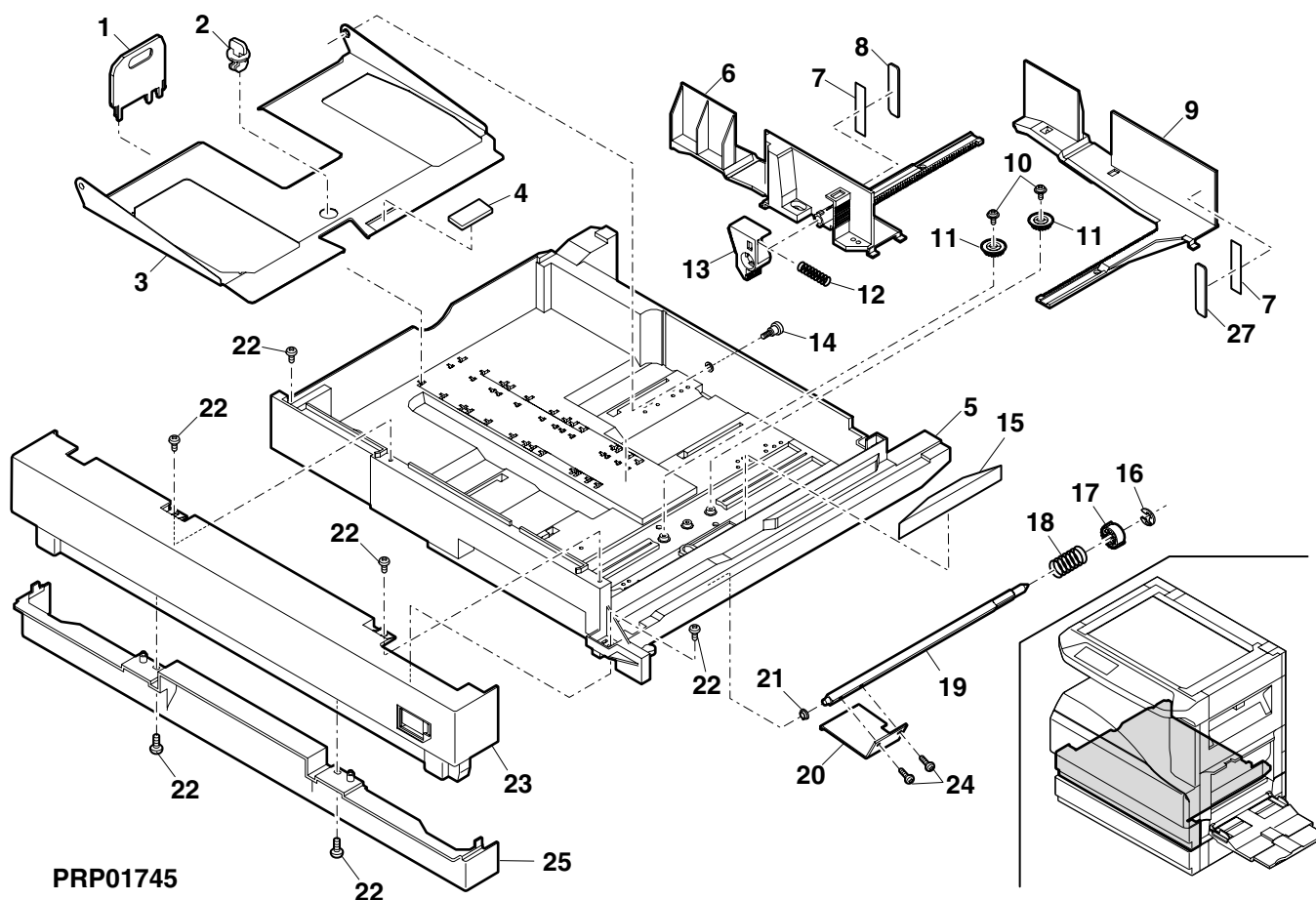
# 14 Middle frame



# 15 550 cassette unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	LPLTP0159QSZZ	AD		C	Cassette rear side plate
2	LHLDW1226FCZZ	AB		C	Turn fastener
3	LPLTM0179QSZZ	AR		C	Rotation plate
4	PSHEZ0274QSZZ	AC		C	Rotation plate sheet
5	GCASP0006QSZZ	BA	N	D	550 cassette
6	PGIDM0070QSZZ	AM		C	Guide F
7	PTPE-0021QSZZ	AD		C	GID tape
8	LPLTM0181QSZZ	AB		C	Side plate guide F
9	PGIDM0071QSZZ	AL		C	Guide R
10	LX-BZ0884FCZZ	AB		C	Screw
11	NGERH0193FCZZ	AB		C	UC manual feed gear
12	MSPRC2631FCZZ	AC		C	Fusing pressure spring
13	MLEVP0755FCZZ	AE		C	Side plate F lever
14	LX-BZ0833FCZZ	AC		C	Screw
15	PSHEZ0244QSZZ	AC		C	Cassette mylar
16	XRESP70-08000	AA		C	E type ring
17	NGERH0108QSZZ	AD		C	Lift gear(22T)
18	MSPRC0210QSZZ	AC		C	Lift gear spring
19	NSFTZ0047QSZZ	AP		C	Lift shaft
20	LPLTM0180QSZZ	AE		C	Lift plate
21	NBRGP0041GCZZ	AD		C	Bearing
22	XEBSE40P10000	AA		C	Screw(4x10)
23	JHNDP0004QSZZ	AV	N	C	Body cassette panel
24	XBP SD40P08KS0	AA		C	Screw(4x8KS)
25	PCOVP0096QSZZ	AN	N	C	Cassette panel line
27	LPLTM0277QSZZ	AC		C	Side plate guide R
(Unit)					
901	CCASP0006RS51	BL	N	E	550 cassette unit

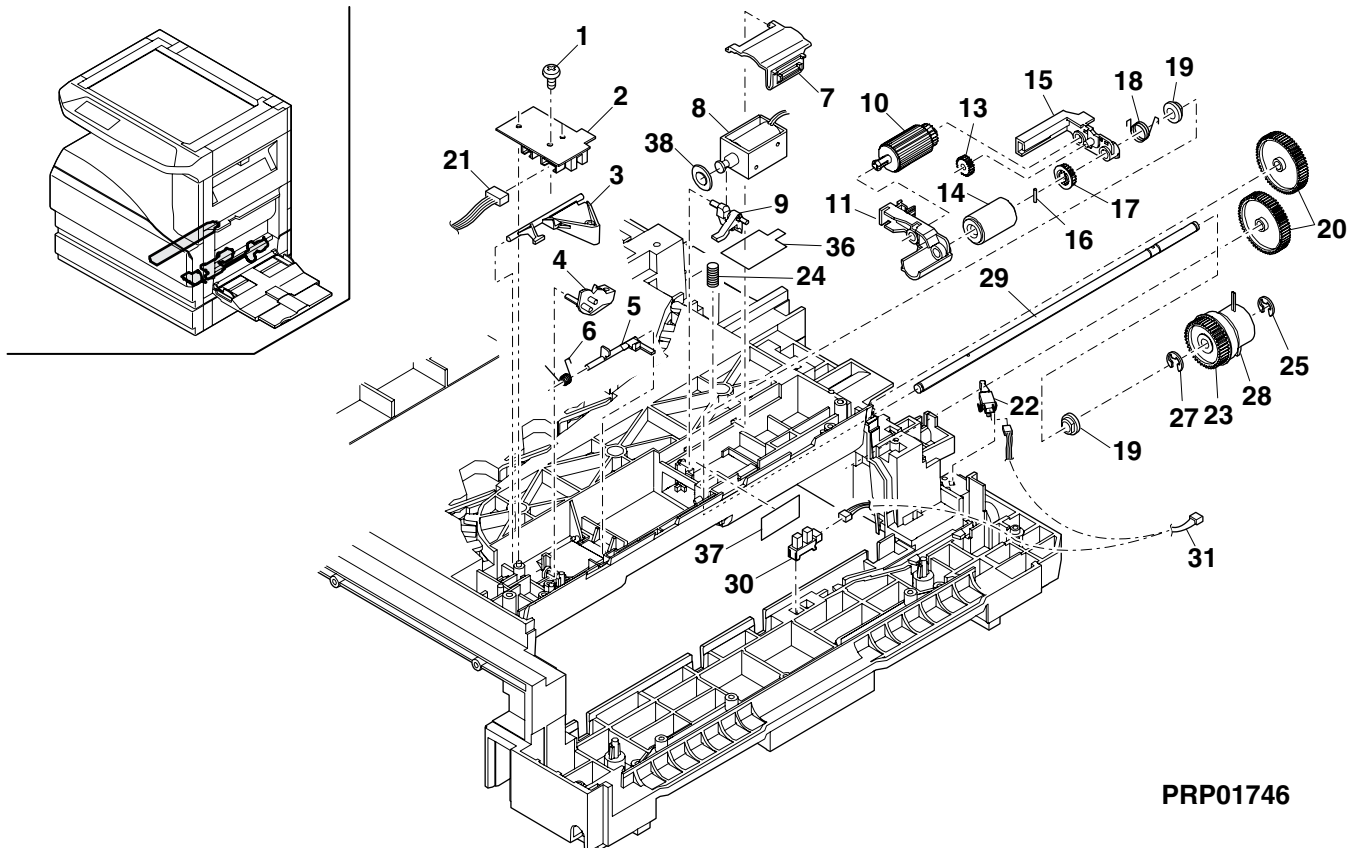
# 15 550 cassette unit



## 16 Paper feed section

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	XEBSD30P10000	AA		C	Screw(4x10)
2	CPWBF0081QSE2	AP	N	E	Cassette sensor PWB
3	MLEVP0064QSZZ	AD		C	Paper detect actuator
4	MLEVP0063QSZZ	AD		C	Upper limit detect actuator
5	MLEVP0056QSZZ	AC		C	P-IN actuator
6	MSPRD0201QSZZ	AC		C	P-IN actuator spring
7	PCÖVP0064QSZZ	AD		D	Solenoid cover
8	RPLU-0026QSZ1	AR		B	Paper feed solenoid
9	MARMP0026QSZZ	AD		C	Solenoid arm
10	NROLR0054QSZZ	AP		C	Pick up roller
11	MARMP0019QSZZ	AD		C	Pick up arm F
13	NGERH0990FCZZ	AB		C	Gear(16T)
14	NROLR0055QSZZ	AR		C	Paper feed roller
15	MARMP0021QSZZ	AD		C	Pick up arm R
16	LPiN-0026MCZZ	AA		C	Spring pin(ø2-10)
17	NGERH0107QSZZ	AD		C	Paper feed gear(20T)
18	MSPRD0206QSZZ	AC		C	Pick up roller pressure spring
19	NBRGC0100FCZ1	AC		C	Bearing 6
20	NGERH0097QSZZ	AF		C	2nd joint gear
21	DHAi-0350QSZZ	AG	N	C	Cassette sensor harness
22	QSW-B0017QSZZ	AF		B	Tray detect switch
23	NGERH0156QSZZ	AD		C	Paper feed clutch gear(42T)
24	MSPRC0209QSZZ	AC		C	Solenoid spring
25	XRESP40-06000	AA		C	E type ring
27	XRESP50-06000	AA		C	E type ring
28	PCLC-0012QSZZ	AS		B	Paper feed clutch(42T)
29	NSFTZ0043QSZZ	AH		C	Paper feed roller shaft
30	VHPGP1S73P+-1	AF		B	Photo sensor(GP1S73P)
31	DHAi-0399QSZZ	AF	N	C	Manual paper feeding empty harness
36	PSHEZ0391QSZZ	AC		C	Paper feed solenoid silence material A
37	PSHEZ0392QSZZ	AB		C	Paper feed solenoid silence material B
38	PSHEZ0393QSZZ	AA		C	Paper feed solenoid silence material C

## 16 Paper feed section



PRP01746

# 17 Paper transfer section

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	XEBSE40P12000	AA		C	Screw(4×12)
2	PCOVP0053QSZZ	AP		D	Middle frame cover
3	MSPRD0194QSZZ	AD		C	PS earth spring LP
4	MSPRC0291QSZZ	AC		C	PS pressure spring
5	NSFTZ0065QSZZ	AD		C	PS sub roller shaft
6	NKOM-0006QSZZ	AC		C	PS collar
7	PSHEZ0133QSZZ	AD		C	Paper feeding sheet
8	XEBSE40P10000	AA		C	Screw(4×10)
9	PGIDM0067QSZZ	AR		C	Base plate paper feed guide
10	MSPRD0233QSZZ	AC		C	MF actuator spring
11	MLEVP0023QSZZ	AE		C	MF sensor actuator
12	MLEVP0044QSZZ	AE		C	MF sensor actuator 2
13	LPLTP0348QSZZ	AC		C	Separation plate
14	MSPRC0301QSZZ	AD	N	C	Pressure plate spring
15	PFTA-0019QSZZ	AE	N	D	Pressure plate cover
16	XEBSD30P10000	AA		C	Screw(3×10)
17	PSHEZ0378QSZZ	AG		C	Separation sheet
18	LRALP0008QSZZ	AQ		C	Base plate rail
19	VHPGP1S73P+-1	AF		B	Photo sensor(GP1S73P)
20	DHAI-0398QSZZ	AE	N	C	Manual paper feeding PIN harness
21	MSPRD0202QSZZ	AB		C	Manual P-IN actuator spring
22	MLEVP0057QSZZ	AC		C	Manual paper feed P-IN actuator
23	PSHEZ0378QSZZ	AG		C	Separation sheet
24	LPLTP0297QSZZ	AC		C	Separation plate
25	PCOVP0088QSZZ	AD	N	D	Plate cover
26	MSPRC0270QSZZ	AB		C	Separation plate spring
27	NKOM-0005QSZZ	AC		C	Cassette guide collar
28	NSFTZ0048QSZZ	AG		C	Cassette collar shaft
29	XBPSD30P08KS0	AA		C	Screw(3×8KS)
31	XEBSD40P10000	AA		C	Screw(4×10)
33	PSHEZ0301QSZZ	AC		C	Rail R side mylar F
34	PSHEZ0302QSZZ	AC		C	Rail R side mylar R
35	LPLTM0276QSZZ	AE		C	Manual feed damper plate (Except AR-M276/M236 Taiwan,UAE)
36	PSHEZ0322QSZZ	AD		C	Front separator sheet
37	PSP0-0026QSZZ	AA		C	MF ACT cushion
38	LHLDZ0094QSZZ	AC		C	PS pressure holder
39	MSPRC0292QSZZ	AC		C	PS sub pressure spring
40	MSPRD0287QSZZ	AC		C	Paper feed assistance roller SP
41	NROLP0087QSZZ	AD		C	Paper feed assistance roller
42	NSFTZ0064QSZZ	AD		C	Paper feed assistance roller shaft
43	PSHEZ0314QSZZ	AF		C	Toner protect mylar
44	LBRC-0012QSZZ	AD		C	Manual feed sub roller bracket
45	NKOM-0009QSZZ	AC		C	Manual feed sub roller
46	NSFTZ0064QSZZ	AD		C	Manual feed sub shaft
47	MSPRD0340QSZZ	AC	N	C	Manual feed sub roller spring
501	CGIDM0067RS51	AY		E	Base plate paper feed guide unit (Except AR-M276/M236 U.kingdom,Taiwan)
502	CCOVP0053RS53	AW		E	Middle frame cover unit

# 18 Side door unit

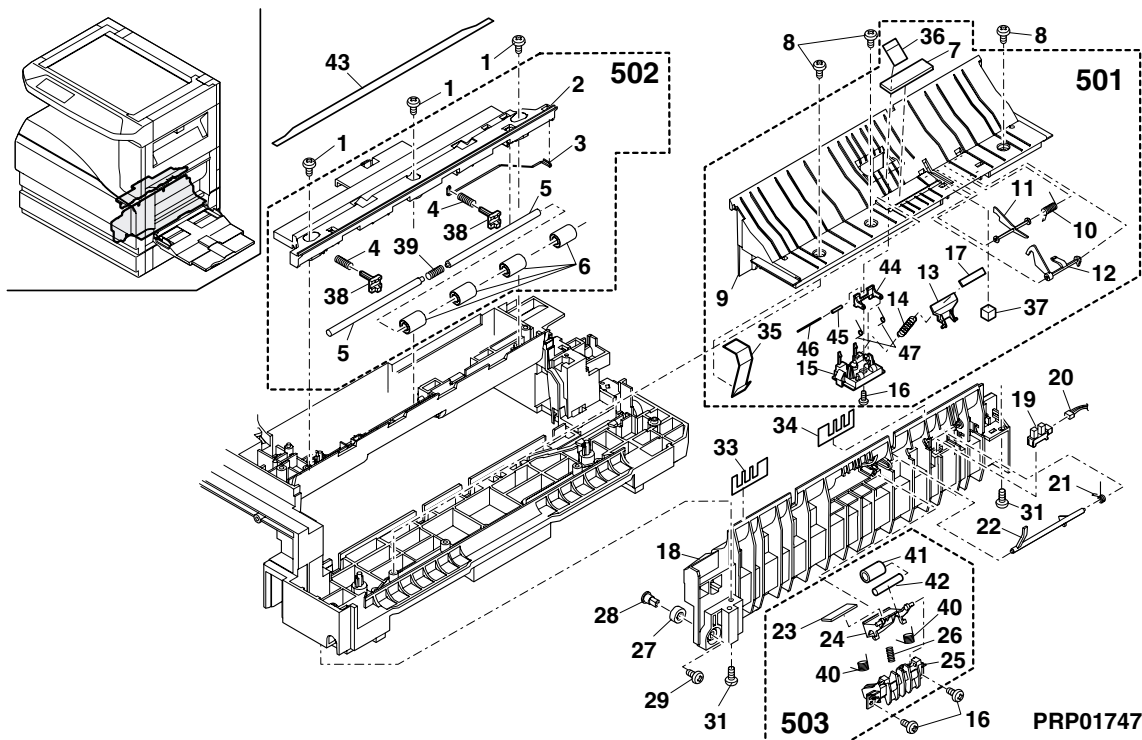
NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	MLEVP0058QSEZ	AD	N	C	Lock lever
2	GDOR-0002QSZZ	AY		D	Right door
3	XRESP40-06000	AA		C	E type ring
4	LBSHZ0303FCZZ	AC		C	M bushing C
5	NGERH0074QSZZ	AD		C	DUP roller driving gear
6	LPIINS0133FCZZ	AA		C	Pin(2×10)
7	PTME-0020QSZZ	AC		C	Lock pawl
8	MSPRD0222QSZZ	AC		C	Lock pawl spring
9	MARMP0043QSZZ	AC		C	Lock pawl arm
10	NSFTZ0055QSZZ	AN		C	Lock pawl shaft
11	XRESP30-06000	AA		C	E type ring
12	NROLP0036QSZZ	AP		C	DUP transport roller
13	XPSSJ20-07000	AA		C	Spring pin
15	NROLP1122FCZZ	AF		C	PS upper roller
16	LFRM-0040QSZZ	AV		D	Right door inner
17	MSPRC0349QSZZ	AD	N	C	High voltage spring B
18	MSPRC0348QSZZ	AD	N	C	High voltage spring A
19	LPLTM0102QSZZ	AD		C	DUP roller earth plate
20	LHLDZ0084QSZZ	AF		C	TR terminal interface holder
21	XEBSE30P08000	AA		C	Screw(3×8)
22	MSPRC0296QSZZ	AF		C	TR pressure spring R
23	MSPRC0295QSZZ	AF		C	TR pressure spring F
24	XHBSD30P10000	AA		C	Screw(3×10)
25	XHBSD30P16000	AA		C	Screw(3×16)
26	XHBSD30P14000	AA		C	Screw(3×14)
27	XEBSD30P10000	AA		C	Screw(3×10)
28	LPLTM0090QSZZ	AE		C	Inner reinforce plate F



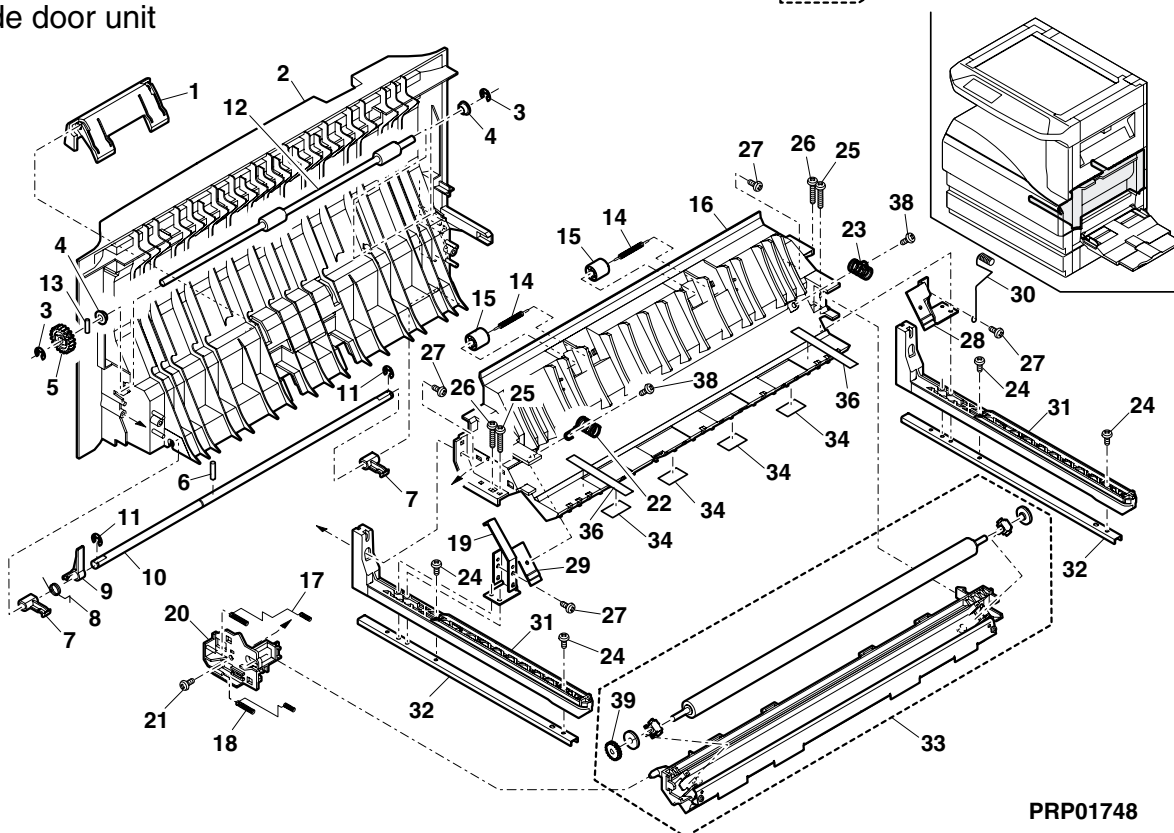
## 18 Side door unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
29	LPLTM0091QSZZ	AE		C	Inner reinforce plate R
30	MSPRD0205QSZZ	AE		C	TC grand spring
31	LRALP0004QSZ2	AH		C	Right door rail
34	PSHEZ0307QSZ1	AB		C	Right door mylar
36	PSHEZ0330QSZZ	AC		C	Right door DUP mylar
38	LX-BZ0032QSZZ	AB		C	Screw
39	NGERH0163QSZ2	AG	N	C	TR Gear
	(Unit)				
901	CDOR-0002RS58	BH	N	E	Side door unit(Except No.33,39)

## 17 Paper transfer section



## 18 Side door unit





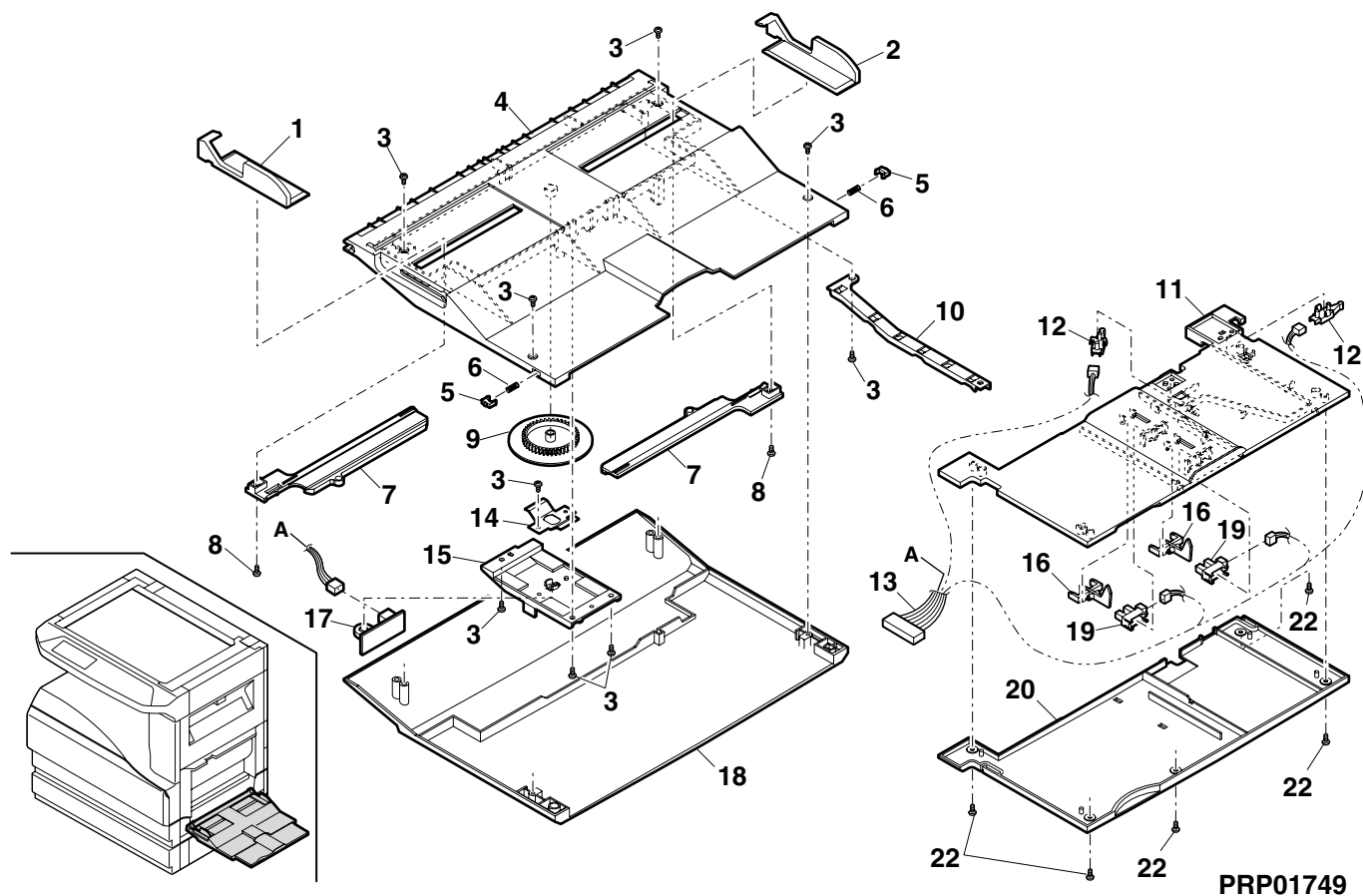
19 Multi manual paper feed tray unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	PGIDM0075QSZZ	AF		C	MB side guide F
2	PGIDM0076QSZZ	AF		C	MB side guide R
3	XEBSE30P08000	AA		C	Screw(3×8)
4	LSOU-0024QSZB	AT	N	D	Manual paper feed tray 1 upper
5	PTME-0271FCZZ	AD		C	Tray lock pawl
6	MSPRC0250QSZZ	AC		C	Tray lock spring
7	NGERR0140QSZZ	AD		C	Width detect rack
8	XEPSD30P06X00	AA		C	Screw(3×6X)
9	NGERP1385FCZZ	AF		C	Width detect pinion
10	LHLDZ0066QSZZ	AD		C	Harness holder
11	LSOU-0026QSZB	AU	N	D	Manual paper feed tray 2 upper
12	QSW-B0017QSZZ	AF		B	Tray detect switch
13	DHAI-0359QSZZ	AP	N	C	Manual paper feeding unit harness
14	MSPRP2830FCZZ	AA		C	Width detect spring
15	LPLTP0234QSZZ	AE		C	Width detect plate
16	MLEVP0035QSE1	AC		C	Original detect actuator
17	CPWBF0106QSE4	AP	N	E	Manual paper feeding VR PWB unit
18	LSOU-0025QSZB	AS	N	D	Manual paper feed tray 1 lower
19	VHPGP1S73P+-1	AF		B	Photo sensor(GP1S73P)
20	LSOU-0027QSZB	AT	N	D	Manual paper feed tray 2 lower
22	XEBSE30P06000	AA		C	Screw(3×6)
	(Unit)				
901	CSOU-0024RS55	BK	N	E	Manual paper feeding tray unit

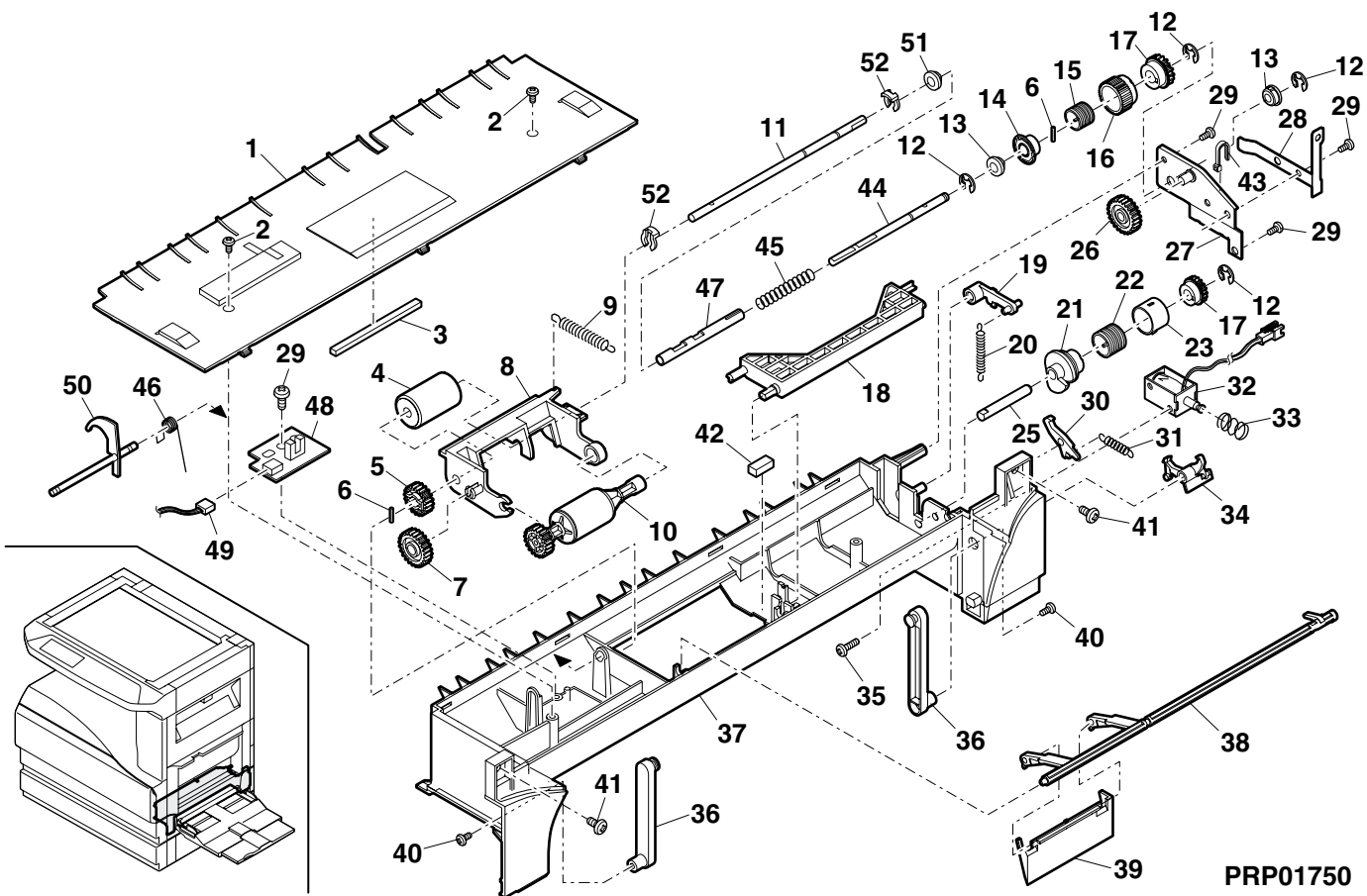
20 Multi manual paper feed unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	PCOVP0055QSZC	AL	N	D	Multi frame cover
2	XEBSE30P10000	AA		C	Screw(3×10)
3	PSHEZ0099QSZZ	AC		C	Protect sheet
4	NROLR0922FCZZ	AR		C	Manual feed roller
5	NGERH0495FCZZ	AC		C	Gear(20T)
6	XPSSJ20-07000	AA		C	Spring pin
7	NGERH0061QSZZ	AD		C	Gear(24T)
8	MARMP0009QSZZ	AF		C	Roller arm
9	MSPRT0091QSZZ	AC		C	Roller arm spring
10	NROLR1267FCZ1	AH		C	Paper feeding rotor
12	XRESP40-06000	AA		C	E type ring
13	LBSHZ0303FCZZ	AC		C	M bushing C
14	LBOSZ1508FCZZ	AG		C	Cam boss A2
15	MSPRC1315FCZ1	AD		C	Manual clutch spring A
16	PPIPP0109FCZZ	AB		C	Manual clutch sleeve pipe A
17	LBOSZ1510FCZZ	AF		C	Cam boss A1
18	MARMP0041QSZZ	AE		C	Cam transmission arm
19	MARMP0006QSZZ	AD		C	Arm
20	MSPRD0347QSZZ	AD	N	C	Stopper arm spring
21	MCAMP0003QSZZ	AD		C	Drive cam
22	MSPRC1316FCZ1	AE		C	MF clutch spring B
23	PPIPP0014QSZZ	AC		C	Cam clutch sleeve
25	NSFTZ0017QSZZ	AG		C	Manual feed cam shaft
26	NGERH0972FCZZ	AB		C	Gear(27T)
27	CPLTM0345QS01	AG	N	C	Paper feed plate
28	MSPRD0092QSZZ	AE		C	MF earth spring
29	XEBSD30P08000	AA		C	Screw(3×8)
30	PTME-0178FCZZ	AC		C	Manual paper feeding pawl A
31	MSPRC2175FCZZ	AA		C	Pawl A spring
32	RPLU-0028QSZZ	AM		B	Multi field solenoid
33	MSPRC1318FCZ1	AA		C	Spring B
34	PTME-0179FCZZ	AC		C	Manual paper feeding pawl B
35	XBBSD30P10000	AA		C	Screw(3×10)
36	MARMP0027QSZ1	AE		C	Manual paper feed tray arm
37	LFRM-0048QSZC	AT	N	D	Multi frame
38	MARMP0008QSZZ	AH		C	Stopper arm
39	LPLTP0056QSZZ	AD		C	Stopper plate
40	XEPSD30P06X00	AA		C	Screw(3×6X)
41	XEBSD30P10000	AA		C	Screw(3×10)
42	PSHEZ0241QSZZ	AB		C	Manual paper feed protection sheet
43	LBNDJ0013FCZ1	AE		C	Cable band
45	MSPRD0302QSZZ	AC		C	Manual paper coupling spring
46	MSPRD0329QSZZ	AC	N	C	Reversal spring
47	NCPL-0012QSZZ	AD		C	Manual paper coupling
48	CPWBF0083QSE5	AU		E	Sensor PWB
49	DHAI-0360QSZZ	AE	N	C	DUP 2 sensor harness
50	MLEVP0104QSZZ	AD	N	C	Reversal lever
51	LBSHZ0006QSZZ	AC		C	M bushing 2
52	LSTPP0011QSZZ	AC		C	E-ring
	(Unit)				
901	CFRM-0048RS53	BH	N	E	Multi manual paper feeding unit(Except No.36,40,41,43)

19 Multi manual paper feed tray unit



20 Multi manual paper feed unit



21 DV unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	PGIDM0085QSZZ	AP		C	TN guide U
2	PGIDM0086QSZZ	AQ		C	TN guide D
3	PSEL-0035QSZZ	AE		C	TG seal
4	XBBSD40P08000	AA		C	Screw(4x8)
5	PCOVP0072QSZZ	AK		D	DV cover U
6	PMLT-0002YSZ1	AC		C	DV-TH cushion
7	PMLT-0006YSZZ	AB		C	DV side cushion R
8	PMLT-0005YSZZ	AB		C	DV side cushion F
9	NROLP0072QSZZ	AP		C	DMX roller
10	NGERH0002YSZZ	AD		C	DMX gear(28T)
11	NBRGC0020QSZZ	AH		C	DMX Bearing
12	XEBSD30P08000	AA		C	Screw(3x8)
13	PSEL-0037QSZZ	AG		C	TG seal
14	NGERH0001YSZZ	AD		C	DV idle gear(20T)
15	NBRGC0021QSZZ	AD		C	DID Bearing
16	NGERH0136QSZZ	AD		C	MG gear(18T)
17	XBP3SD30P06KS0	AA		C	Screw(3x6KS)
18	PBOX-0001YS13	AM		D	DV BOX
19	PSHEP0035YSZZ	AB		C	DV side seat N
20	LPLTM6022FCZZ	AC		C	M4 plate
21	PSEL-0025QSZZ	AA		C	DVC seal
22	NROLM0108QSZZ	BA	N	C	MG roller
23	PSEL-0132QSZZ	AG		C	DV plate
24	XBPBZ30P03000	AB		C	Screw(3x3)
25	LPLTM0001YSZZ	AN		C	Doctor
26	LPLTM0002YSZZ	AP		C	Doctor reinforce plate
27	PSEN-0001QSZZ	AC		C	DV cap F
28	RDTCM0015QSZZ	AY		B	ATC sensor
29	XUBUZ30P08000	AA		C	Screw(3x8)
30	XRESP30-06000	AA		C	E type ring
31	LHLDR0072QSZZ	AC		C	MG holder
33	MSPRK0001YSZZ	AB		C	Bias spring
34	PSPAP0023QSZZ	AC		C	DV spacer F
35	LHLDZ0001YSZZ	AD		C	Bearing holder
36	LX-BZ0026QSZZ	AD		C	Screw
37	XEBSD30P10000	AA		C	Screw(3x10)
38	PCOVP0073QSZZ	AG		D	DV cover F
39	PSEL-0114QSZZ	AC		C	Seal F
40	PSEL-0115QSZZ	AD		C	Seal F2
41	TCAUH0016QSZZ	AC		C	Label
43	PSEL-0117QSZZ	AB		C	TG seal R
44	PSEL-0124QSZZ	AB		C	TG seal F
45	PSPAP0036QSZZ	AC		C	TGU-SPA-FL
46	PSEL-0116QSZZ	AB		C	DVC seal F
47	LANGF0013QSZZ	AD		C	DID plate
48	XEBSD26P05000	AA		C	Screw(2.6x5)
49	PSHEP0324QSZZ	AC		C	DVB Sheet FBR
50	DHAI-0314QSZZ	AH	N	C	Sensor harness
501	CBOX-0001JS5G	BL	N	E	DV box unit
502	CCOVP0072RS54	AP		E	DV cover unit

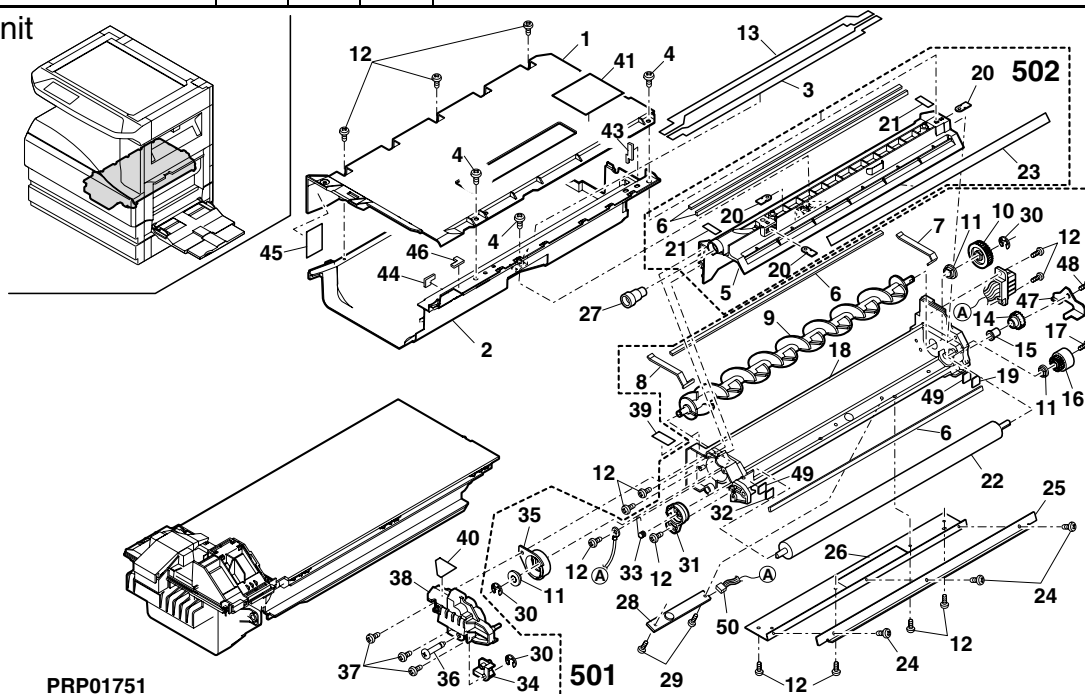
22 Process unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	XEBSD30P08000	AA		C	Screw(3x8)
2	PCAPH0009QSZZ	AC		D	Toner pipe cap
3	NSRW-0002QSZZ	AE		C	Transport pipe screw
4	LPLTM0241QSZZ	AF		C	Process reinforce plate
5	MLEVP0065QSZZ	AE		C	Separator pawl lever
6	CFRM-0049RS61	AZ		D	Process frame unit (Except Philippines,STCL,SRS,SRSSC,Indonesia,India,SRH)
	CFRM-0049RS69	AZ		D	Process frame unit (Philippines,STCL,SRS,SRSSC,Indonesia,India,SRH)
7	NCPL-0003QSZZ	AC		C	Screw cupring
10	PSEL-0071QSZZ	AF		C	Seal R
11	PSEL-0070QSZZ	AF		C	Seal F
12	PSHT-0004QSZZ	AC		C	Toner pipp shuter
13	PPIPP0015QSZZ	AG		C	Toner pipe
14	MSPRC0045QSZZ	AA		C	Toner pipe spring
15	PSPA Z0696FCZZ	AC		C	P cap spacer
16	NGERH0036QSZZ	AC		C	Transport screw gear(30T)
17	PCOVP0057QSZZ	AG		D	Drum cover
18	NGERH0039QSZZ	AE		C	Transport pipe gear(14T)
19	LFI X-0014QSZZ	AE		C	Drum fixing plate A (U.S.A Other countries)
	LFI X-0015QSZZ	AE		C	Drum fixing plate B (Europe,Australia,New Zealand)
20	NGERH0037QSZZ	AC		C	Idle gear(26T)
21	NGERH0038QSZZ	AC		C	Transport pipe gear(15T)
22	NSFTZ0020QSZZ	AL		C	Transport screw
23	NBRGP0299FCZZ	AC		C	DV bearing
24	PMLT-0018QSZZ	AC		C	Transport screw cushion
25	PTME-0021QSZZ	AK		C	Separator pawl

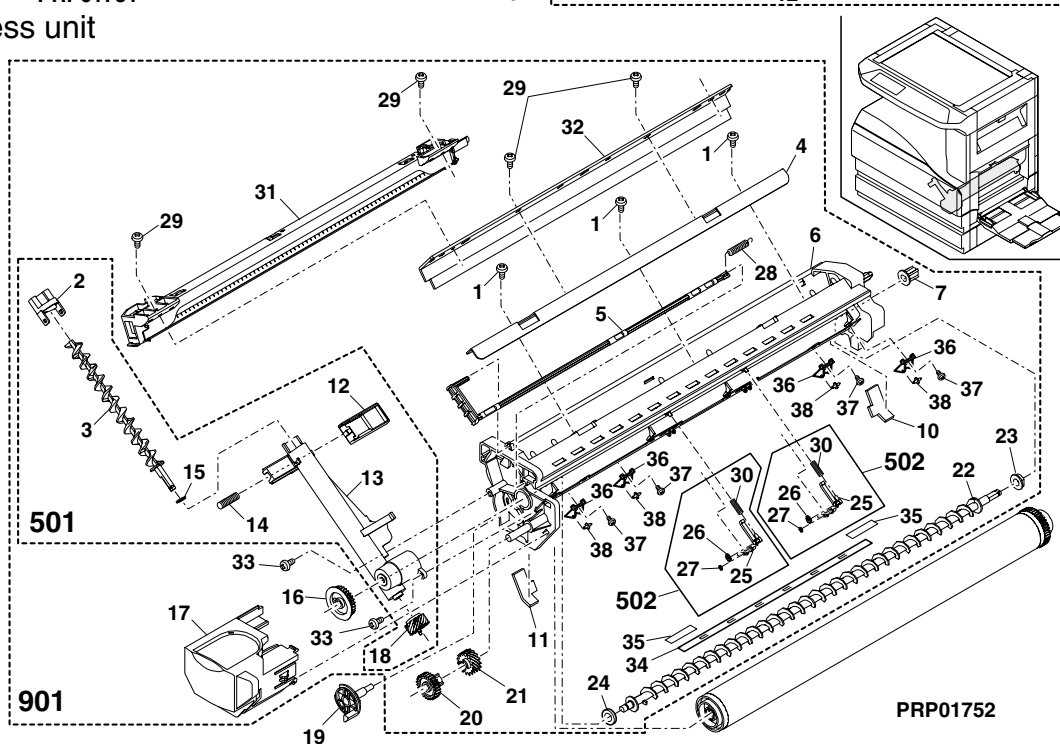
## 22 Process unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
26	LX-WZ0329FCZZ	AB		C	Washer
27	LX-RZ0001QSZZ	AB		C	Starling
28	MSPRT0214QSZZ	AB		C	Lever spring
29	XHBS230P08000	AA		C	Screw(3x8)
30	MSPRC0213QSZZ	AB		C	Separator pawl spring
31	CHLDZ0035RS53	AZ		E	MC holder unit
32	UCLEZ0011QSZZ	AT		D	Cleaning blade
33	XEBSE30P10000	AA		C	Screw(3x10)
34	PSHEZ0329QSZZ	AC		C	Screw miler
35	PTPE-0026QSZZ	AA		C	Screw tape
36	LHLDZ0090QSZZ	AC		C	Star ring holder (Philippines,STCL,SRS,SRSSC,Indonesia,India,SRH)
37	LX-BZ0406FCZZ	AA		C	Screw(3x4) (Philippines,STCL,SRS,SRSSC,Indonesia,India,SRH)
38	PRNGF0106FCZ2	AC		C	Star ring N2 (Philippines,STCL,SRS,SRSSC,Indonesia,India,SRH)
501	CPiPP0015RS51	AP		E	Toner pipe unit
502	CTME-0021RS51	AK		E	Separator pawl unit
	(Unit)				
901	CFRM-0049RS58	BK	N	E	Process unit(Except No.19) (Except Philippines,STCL,SRS,SRSSC,Indonesia,India,SRH)
	CFRM-0049RS54	BK		E	Process unit(Except No.19) (Philippines,STCL,SRS,SRSSC,Indonesia,India,SRH)

## 21 DV unit



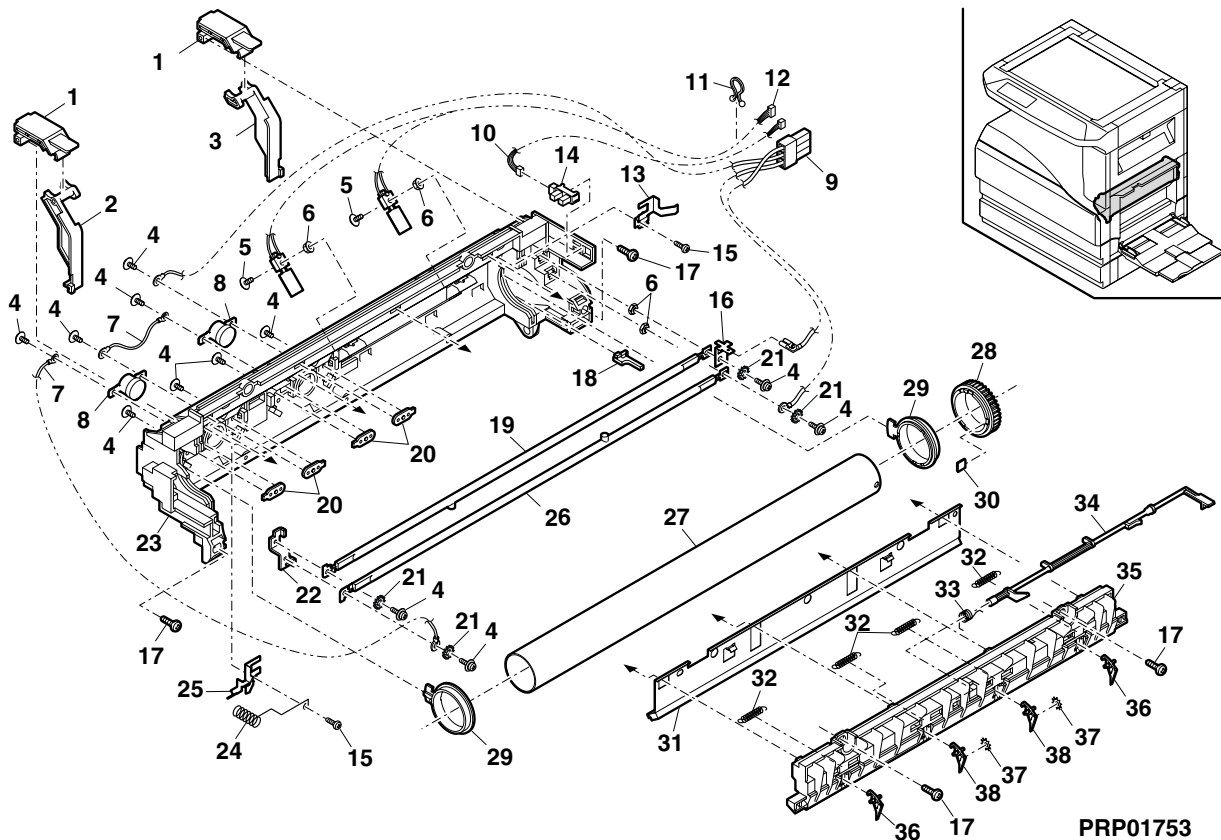
## 22 Process unit



## 23 Fusing unit 1

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	MARMP0048QSZZ	AF	N	C	Pressurization fulcrum arm
2	MLEVP0100QSZZ	AE	N	C	Pressurization lever F TL
3	MLEVP0101QSZZ	AE	N	C	Pressurization lever R TL
4	XBPSN30P08KS0	AA		C	Screw(3×8KS)
5	XBPSD30P14KS0	AA		C	Screw(3×14KS)
6	LX-NZ0002QSZZ	AA	N	C	Nut
7	DHAI-0368QSZZ	AD	N	C	Thermostat harness 1
8	RTHM-0004QSZZ	AN	N	B	Thermostat TL
9	DHAI-0366QSZZ	AL	N	C	Fusing harness
10	DHAI-0367QSZZ	AF	N	C	DUP sensor harness
11	LHLDW0086QSZZ	AB		C	Harness ring
12	RH-HX0001QSZZ	AS	N	B	Thermistor TL
13	LPLTM0338QSZZ	AC	N	C	Fusing earth plate UR
14	VHPGP1S73P+-1	AF		B	Photo sensor(GP1S73P)
15	XEBSD30P06000	AA		C	Screw(3×6)
16	LPLTM0334QSZZ	AE	N	C	Lamp terminal plate
17	LX-BZ0040QSZZ	AC	N	C	Screw
18	LSTPP0017QSZZ	AF	N	C	Suport
19	RLMPU0027QSZZ	AY	N	B	Sub heater lamp (120V)
19	RLMPU0029QSZZ	AY	N	B	Sub heater lamp (230V)
20	LPLTM0339QSZZ	AC	N	C	Thermostat fixing plate
21	LX-WZ7021SCZZ	AA		C	Washer
22	LPLTM0335QSZZ	AF	N	C	Lamp fixing plate
23	LFRM-0071QSZZ	AY	N	D	Fusing upper frame
24	MSPRC0323QSZZ	AC	N	C	Fusing earth spring
25	LPLTM0337QSZZ	AC	N	C	Fusing earth plate UF
26	RLMPU0026QSZZ	AZ	N	B	Main heater lamp TL (120V)
26	RLMPU0028QSZZ	AZ	N	B	Main heater lamp TL (230V)
27	NROLM0098QSZZ	BE	N	C	Heat roller TL
28	NGERH0171QSZZ	AR	N	B	Fusing gear TL(38T)
29	NBRGP0025QSZZ	AN	N	C	Upper HR bearing TL
31	CPLTM0336QS01	AR	N	C	Fusing cleaner plate
32	MSPRT0257QSZ1	AC		C	Upper pawl spring
33	MSPRD0322QSZZ	AC	N	C	Fusing ACT spring
34	MLEVP0099QSZZ	AF	N	C	Fusing rear side lever
35	PGIDM0113QSZZ	AT	N	C	Fusing rear upper guide
36	PTME-0282FCZZ	AH		C	Upper separate pawl
37	LX-WZ0001QSZZ	AC		C	Washer
38	PTME-0024QSZZ	AN		C	Upper separate pawl
(Unit)					
901	DUNTW0375RS12	BZ	N	E	Fusing unit(Include Block 24. Except No.17) (120V)

## 23 Fusing unit 1

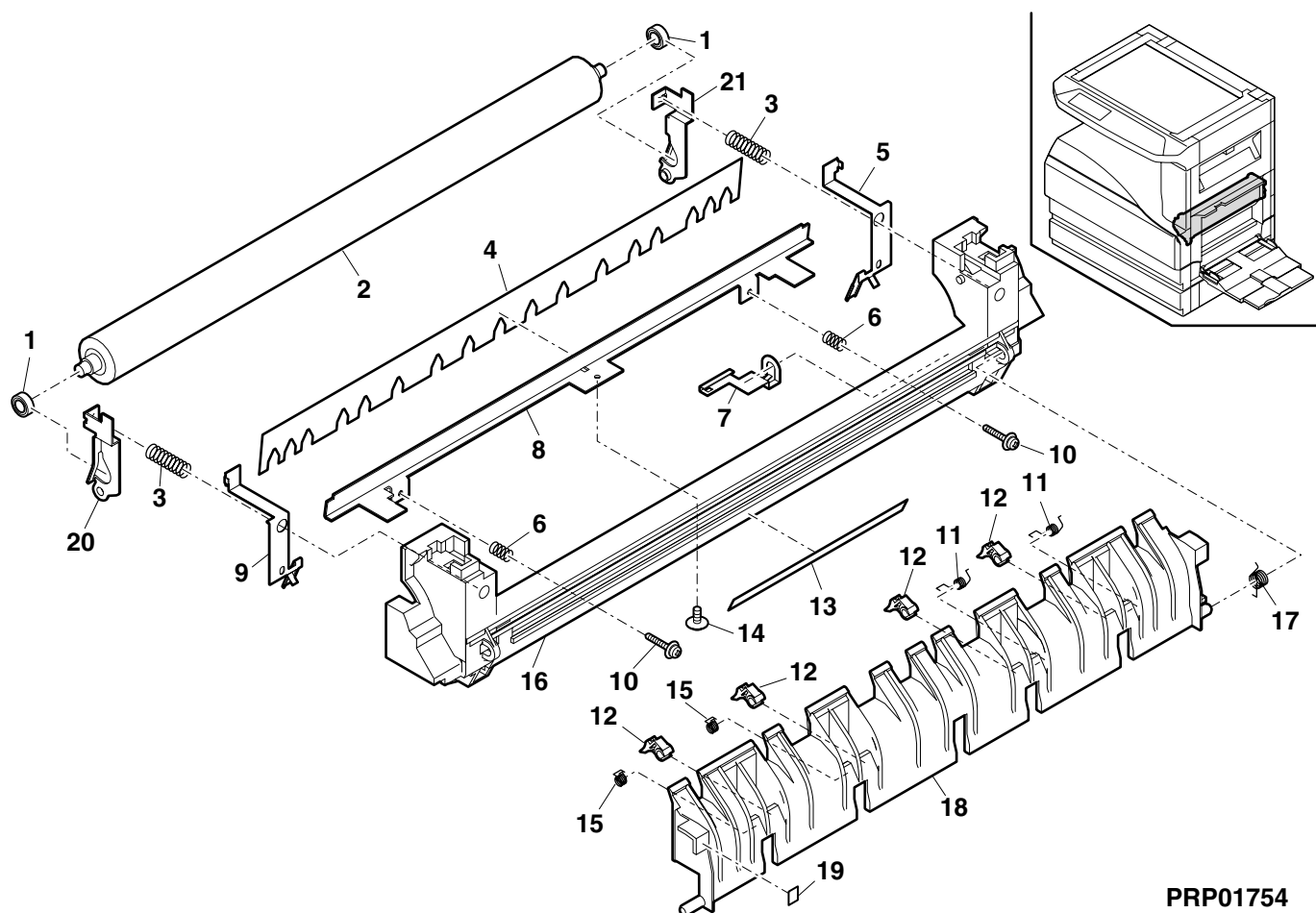


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## 24 Fusing unit 2

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	NBRGY0022QSZZ	AL		C	Fusing pressure bearing
2	NROLS0100QSZZ	BB	N	C	Fusing roller
3	MSPRC0324QSZZ	AC	N	C	Fusing pressure spring TL
4	PSHEZ0266QSZZ	AK		C	Fusing front guide sheet
6	MSPRC0325QSZZ	AB	N	C	Fusing front guide spring
7	LPLTM0344QSZZ	AC	N	C	Fusing front guide earth plate
8	PGIDH0114QSZZ	AH	N	C	Fusing front guide
9	LPLTM0340QSZZ	AC	N	C	Fusing earth plate DF
10	XBPSD30P14KS0	AA		C	Screw(3x14KS)
11	MSPRD0328QSZZ	AC	N	C	Lower pawl spring R TL
12	PTME-0014QSZZ	AK		C	Lower separate pawl
14	XBPSN30P08KS0	AA		C	Screw(3x8KS)
15	MSPRD0327QSZZ	AC	N	C	Lower pawl spring F TL
16	LFRM-0072QSZZ	AU	N	D	Fusing lower frame
17	MSPRD0326QSZZ	AC	N	C	Fusing rear lower guide spring
18	PGIDM0115QSZZ	AS	N	C	Fusing rear lower guide
19	TLABH0289QSZZ	AA		C	Fusing green label
(Unit)					
901	DUNTW0375RS12	BZ	N	E	Fusing unit(Include Block 23.) (120V)

## 24 Fusing unit 2



## 25

25

25



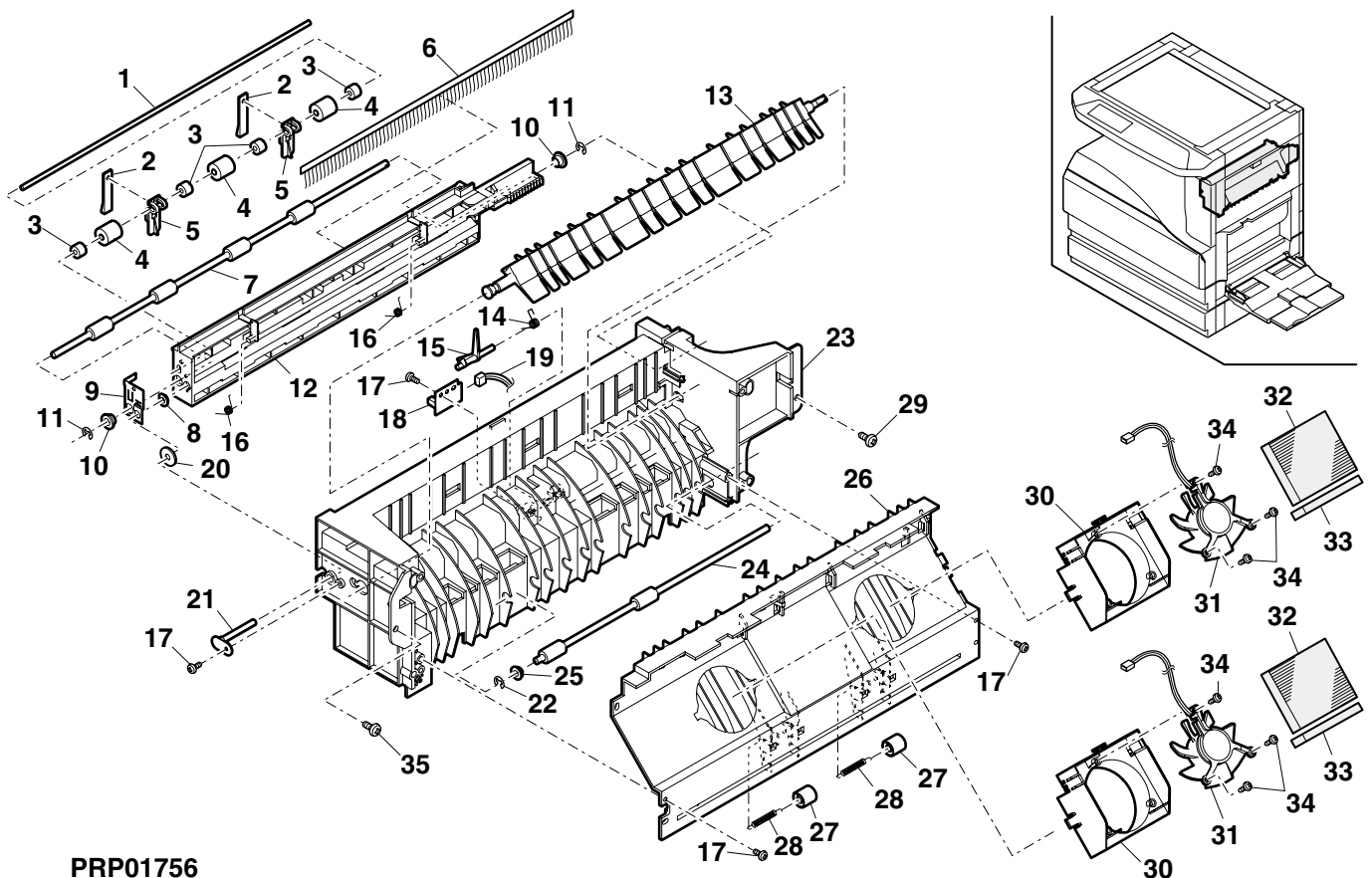
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## 26 1st delivery paper unit 1

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	NSFTZ0042QSZZ	AF		C	Delivery sub roller shaft
2	PGUMM0005QSZZ	AD		C	Paddler (Except AR-M276/M236 U.kingdom,Taiwan)
3	NROLP0049QSZZ	AC		C	Delivery sub roller
4	NROLP0079QSZZ	AC		C	Delivery sub roller (Large)
5	LBRC-0003QSZZ	AD		C	P-OUT bracket
6	PBRSR0019QSZZ	AK		B	Discharger brush LP
7	NROLM0037QSZZ	AR		C	Delivery roller C
8	NBRGY2122SCZZ	AB		C	Transport roller bearing
9	LPLTM0195QSZZ	AC		C	Delivery earth plate A
10	NBRGM0501FCZZ	AB		C	Bearing
11	XRESP50-06000	AA		C	E type ring
12	LHLDZ0058QSZZ	AR		C	Delivery roller holder
13	LPLTP0185QSZZ	AL		C	Delivery change gate
14	MSPRD0224QSZZ	AB		C	Delivery actuator spring
15	MLEVP0055QSZZ	AC		C	Delivery actuator
16	MSPRT0197QSZZ	AB		C	Delivery sub spring
17	XEBSD30P08000	AA		C	Screw(3x8)
18	CPWBF0083QSE5	AU		E	Sensor PWB
19	DHAI-0364QSZZ	AP	N	C	1st delivery harness
20	PSP0-0021QSZZ	AD		C	Shifter cution
21	CSFTZ0023QS01	AH		C	Shifter shaft
22	XRESP40-06000	AA		C	E type ring
24	NROLR0051QSZZ	AL		C	DUP delivery roller
25	LBSHZ0303FCZZ	AC		C	M bushing C
26	PGIDM0065QSZZ	AY		C	Delivery upper paper guide
27	NROLP1122FCZZ	AF		C	PS upper roller
28	MSPRT0229GCAZ	AC		C	FU spring R
29	XHBSE40P10000	AA		C	Screw(4x10)
30	PDUC-0003QSZZ	AG		C	Cooling fan duct
31	NFANP0004QSZZ	BB		B	Cooling fan
32	PFILZ0004QSZZ	AM		B	Ozone filter
33	PMLT-0027QSZZ	AC		C	Cleaning fan cushion
34	XEBSD20P06000	AA		C	Screw(2x6)
35	LX-BZ0780FCZZ	AC		C	Screw
(Unit)					
901	CFRM-0038RS57	BT	N	E	1st delivery unit(Include Block 27 Except No.29,35) (AR-M276/M236 U.kingdom,Taiwan)
	CFRM-0038RS58	BT	N	E	1st delivery unit(Include Block 27 Except No.29,35) (Except AR-M276/M236 U.kingdom,Taiwan)

## 26 1st delivery paper unit 1

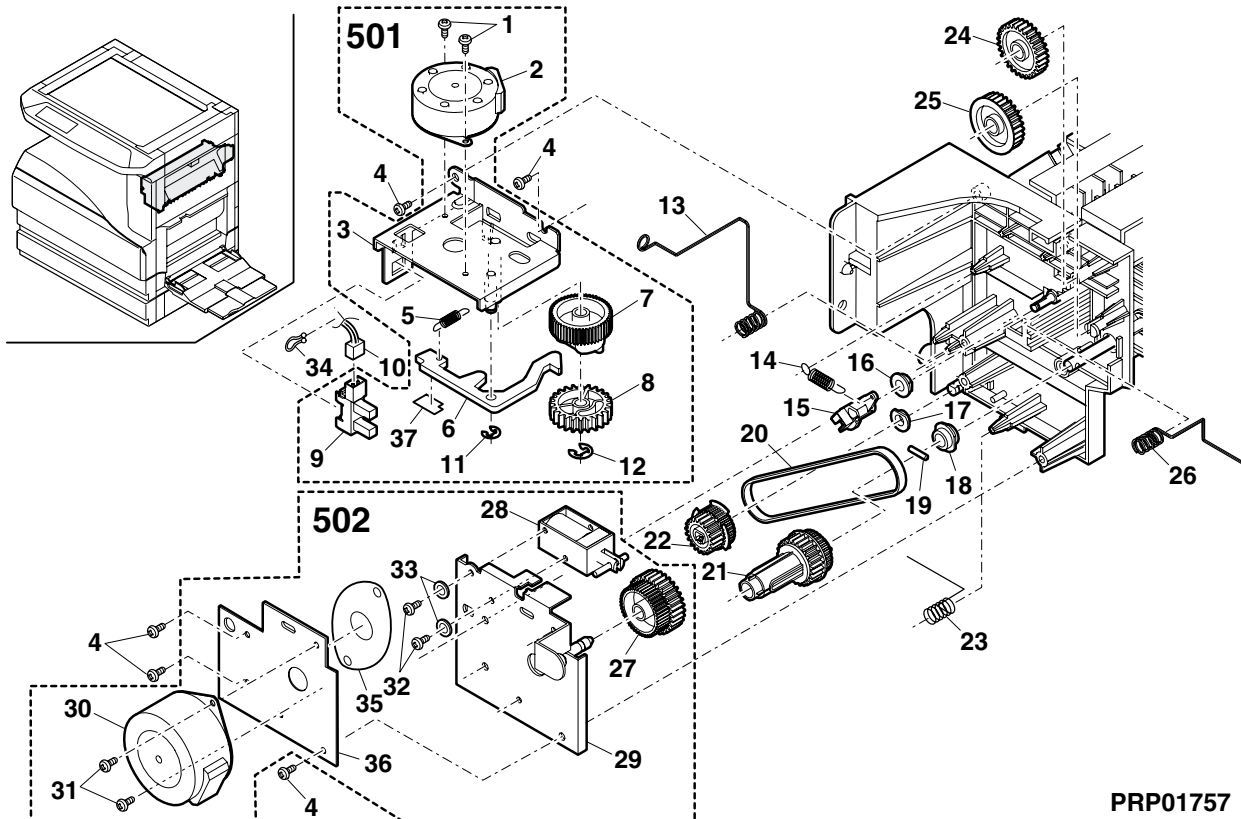




27 1st delivery paper unit 2

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	XHBSD30P08000	AA		C	Screw(3×8)
2	RMOTP0029QSNA	AV		B	Shifter motor
3	CPLTM0184QS02	AG		C	Shifter drive plate
4	XEBSD30P08000	AA		C	Screw(3×8)
5	MSPRD0225QSZZ	AC		C	Stopper return spring
6	LSTPP0003QSZ1	AC		C	Shifter stopper
7	NGERH0068QSZ1	AD		C	Shifter gear(50T)
8	NGERH0067QSZZ	AD		C	Shifter gear(24T)
9	VHPGP1A71L3-1	AG		B	Photo sensor(GP1A71L3)
10	DHAi-0364QSZZ	AP	N	C	1st delivery harness
11	XRESP30-06000	AA		C	E type ring
12	XRESP40-06000	AA		C	E type ring
13	MSPRD0216QSZZ	AD		C	Shifter earth spring
14	MSPRT0217QSZ1	AC		C	Gate return spring
15	LBRC-0002QSZZ	AD		C	Gate bracket
16	LBSHZ0303FCZZ	AC		C	M bushing C
17	NBRGY2122SCZZ	AB		C	Transport roller bearing
18	NBRGC0019QSZZ	AD		C	Bearing
19	LPI NS0258FCZZ	AA		C	Spring pin(φ3-10)
20	NBLTT0024QSZZ	AG		B	Drive belt 240
21	NGERH0080QSZZ	AE		C	Delivery drive gear(25/31T)
22	NGERH0082QSZZ	AD		C	DUP delivery gear(20/31T)
23	MSPRD0198QSZZ	AC		C	Delivery earth spring B
24	NGERH0113QSZZ	AC		C	Idle gear B(29T)
25	NGERH0114QSZZ	AC		C	Idle gear C(29T)
26	MSPRD0196QSZZ	AC		C	Delivery earth spring A
27	NGERH0155QSZZ	AD		C	Gear(31/39T)
28	RPLU-0027QSZZ	AU		B	Change gate solenoid
29	CBRC-0004QS03	AF		C	DUP motor fixing bracket
30	RMOTP0024QSZZ	AW		B	DUP motor
31	XHBSD30P08000	AA		C	Screw(3×8)
32	XBBSD26P03000	AA		C	Screw(2.6×3)
33	XWHS D30-05070	AA		C	Washer
34	LHLDW1334FCZZ	AA		C	Wire holder
35	PSHEZ0316QSZZ	AD		C	Delivery motor sheet
36	PRDAZ0002QSZZ	AD		C	Delivery motor radiation plate
37	PSHEZ0341QSZZ	AA		C	Shifter stop mylar
501	CPLTM0184RS52	AZ	N	E	Shifter unit
502	CBRC-0004RS51	BA		E	DUP motor fixing bracket unit
(Unit)					
901	CFRM-0038RS57	BT	N	E	1st delivery unit(Include Block 26) (AR-M276/M236 U.kingdom,Taiwan)
	CFRM-0038RS58	BT	N	E	1st delivery unit(Include Block 26) (Except AR-M276/M236 U.kingdom,Taiwan)

27 1st delivery paper unit 2

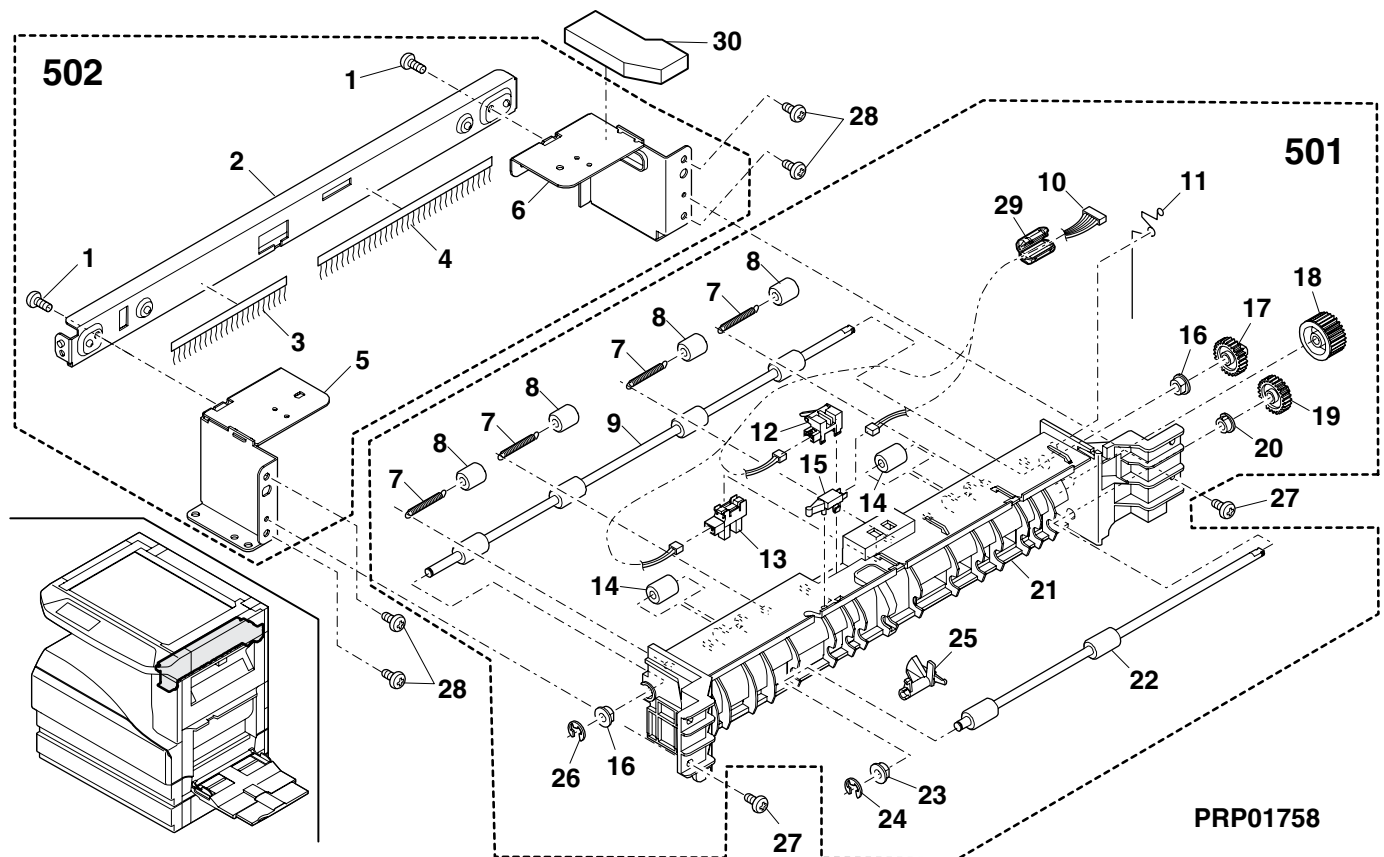


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## 28 2nd delivery paper unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	XHBSD40P10000	AA		C	Screw(4x10)
2	CPLTM0216QS01	AH		C	DID rail assistance plate
3	PBRSR0021QSZ1	AG		B	Discharger brush S
4	PBRSR0020QSZ1	AH		B	Discharger brush L
5	LFRM-0047QSZZ	AG		D	Delivery frame
6	LFRM-0058QSZZ	AG		D	Delivery frame R
7	MSPRT0229GCAZ	AC		C	FU spring R
8	NROLP1122FCZZ	AF		C	PS upper roller
9	NROLR0056QSZ1	AN		C	Delivery roller
10	DHAI-0365QSZZ	AH	N	C	2nd delivery harness
11	MSPRD0218QSZZ	AD		C	Delivery earth spring
12	VHGP1S44S/-1	AK		B	Photo sensor(GP1S44S)
13	VHGP1S73P+-1	AF		B	Photo sensor(GP1S73P)
14	NROLP0079QSZZ	AC		C	Delivery roller
15	QSW-B0017QSZZ	AF		B	Tray detect switch
16	NBRGM0501FCZZ	AB		C	Bearing
17	NGERH0111QSZZ	AC		C	Drive gear A(25T)
18	NGERH0110QSZZ	AE		C	Idle gear A(29T)
19	NGERH0112QSZZ	AC		C	Drive gear B(25T)
20	NBRGY2122SCZZ	AB		C	Transport roller bearing
21	PGIDM0072QSZZ	AU		C	Delivery lower paper guide
22	NROLR0051QSZ1	AL		C	DUP delivery roller
23	LBSHZ0303FCZZ	AC		C	M bushing C
24	XRESP40-06000	AA		C	E type ring
25	MLEVP0067QSZ1	AC		C	Delivery actuator
26	XRESP50-06000	AA		C	E type ring
27	XHBSD30P08000	AA		C	Screw(3x8)
28	XHBSE40P10000	AA		C	Screw(4x10)
29	RCORF0014QSZZ	AK		C	Core (Taiwan)
30	PMLT-0090QSZZ	AE	N	C	2nd delivery upper cushion R
501	CGIDM0072RS64	BB	N	E	Delivery lower PG unit
502	CFRM-0047RS51	AV		E	Delivery frame unit

## 28 2nd delivery paper unit



29 PWB section

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	CPWBX0136QS31	CG	N	E	IMC PWB
2	XBBS030P08000	AA		C	Screw(3x8)
4	CPWBF0138QSE1	BD	N	E	Option interface PWB
5	XBBSF30P08000	AA		C	Screw(3x8)
6	DHAI-0372QSZZ	AE	N	C	OP interface PWB harness
7	LHLDZ0062QSZZ	AT		C	MCU PWB holder
8	LX-BZ0031QSZZ	AC		C	Screw
9	LHLDW0086QSZZ	AB		C	Harness ring
10	CPWBX0134QS31	CF	N	E	MCU PWB (AR-M237/M236)
12	LHLDZ0071QSZZ	AG		C	Mother bord holder
13	CPWBN0137QSE1	AZ	N	E	Mother bord
14	XHBSE30P08000	AA		C	Screw(3x8)
15	LX-BZ0024QSZZ	AA		C	Screw
16	LHLDZ0070QSZZ	AX	N	C	OP PWB holder
17	XHBSE30P08000	AA		C	Screw(3x8)
18	XEBSE40P10000	AA		C	Screw(4x8)
19	XBPSD30P08KS0	AA		C	Screw(3x8)
20	PSHEZ0269QSZZ	AC		C	CCD harness sheet
21	RCORF0002QSZZ	AE		C	Core
22	DHAI-0345QSZZ	AG	N	C	CCD harness
28	DHAI-0353QSZZ	AH	N	C	ILSW I/F harness 2
29	DHAI-0392QSZZ	AU	N	C	2nd harness
30	PCAPH0023FCZZ	AC		D	15P protect cap
31	PCAPH1003ACZZ	AC		D	25P protect cap
32	PCAPH1005ACZZ	AC		D	9P protect cap
33	CPWBN0135QS31	CF	N	E	GDI PWB
35	DHAI-0364QSZZ	AP	N	C	1st delivery harness
37	DHAI-0200QSZZ	AS		C	CL harness
38	DHAI-0346QSZZ	AP	N	C	Optical sensor harness [AB Series]
	DHAI-0347QSZZ	AN	N	C	Optical sensor harness [Inch Series]
39	DHAI-0373QSZZ	AS	N	C	DV/LSU interface harness
40	DHAI-0371QSZZ	AR	N	C	Drive/Manual paper feed interface harness
41	DHAI-0395QSZZ	AG	N	C	Cassette sensor PWB harness
42	DHAI-0348QSZZ	AH	N	C	Operation PWB FFC
43	DHAI-0381QSZZ	AH	N	C	Fusing interface harness
44	DHAI-0374QSZZ	AX	N	C	Power supply harness
45	PGSK-0018QSZZ	AH		C	MCU-OP PWB holder cushion (Taiwan)
47	RCORF0011QSZZ	AG		C	Manual harness core (Taiwan)
48	PTPE-0034QSZZ	AP		C	MB holder shield cushion (Taiwan)
49	PTPE-0035QSZZ	AH		C	MB holder tape B (Taiwan)
50	PGSK-0017QSZZ	AH		C	1394CN cushion (Taiwan)
51	PTPE-0027QSZZ	AP		C	OP PWB holder shield tape A (Taiwan)
52	PTPE-0028QSZZ	AG		C	OP PWB holder shield tape B (Taiwan)
53	PTPE-0029QSZZ	AG		C	OP PWB holder shield tape C (Taiwan)
54	PSHEM0338QSZZ	AH		C	IMC shield alpet (Taiwan)

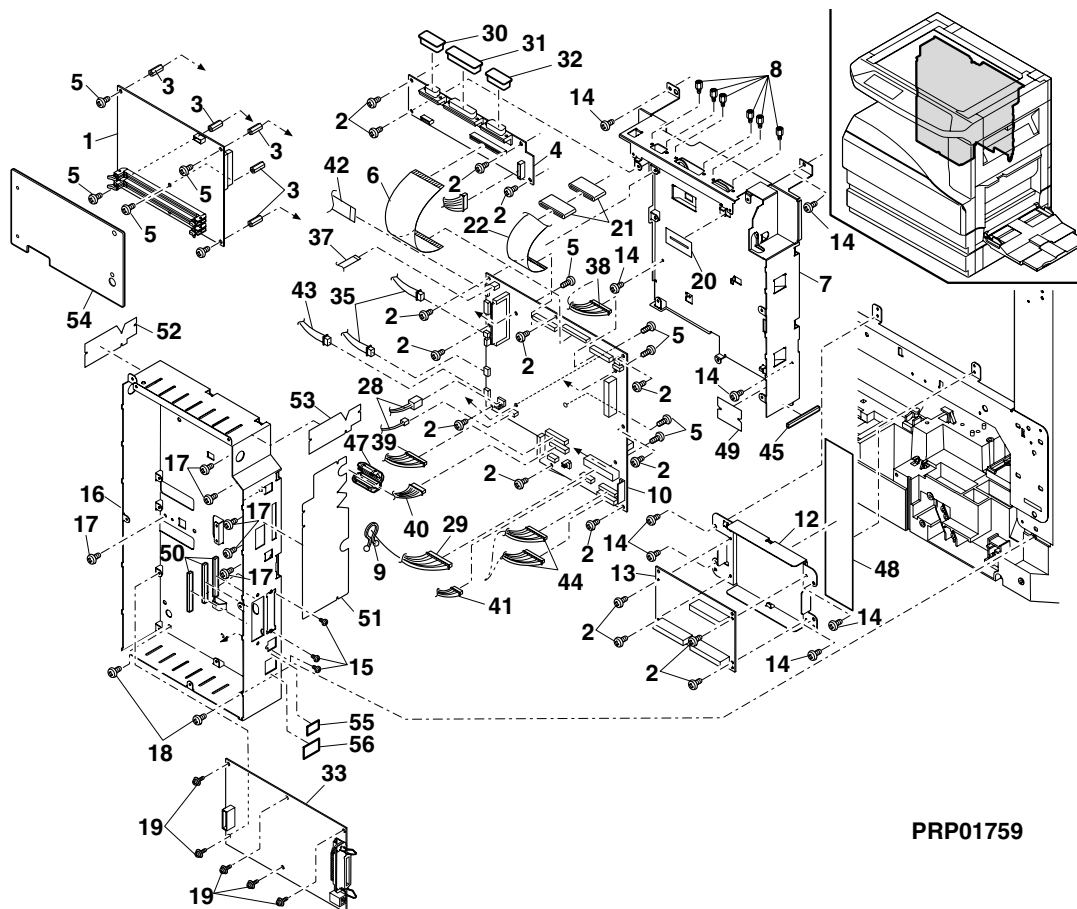
30 Rear frame section

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	XBPSN40P06K00	AA		C	Screw(4x6K)
2	DHAI-0375QSZZ	AM	N	C	HL interface harness
4	XHBSE30P06000	AA		C	Screw(3x6)
5	LPLTM0162QSZZ	AC		C	Drive earth plate
6	LPLTM0252QSZZ	AD		C	Paper feed earth plate LP
7	DHAI-0371QSZZ	AR	N	C	Drive/Manual paper feed interface harness
8	DHAI-0378QSZZ	AC	N	C	Cassette earth harness
9	XHBSE30P08000	AA		C	Screw(3x8)
10	XEBSD40P30000	AA		C	Screw(4x30)
11	PGIDM0112QSZZ	AG	N	C	Harness guide
12	XEBSD40P30000	AA		C	Screw(4x30)
13	CDAIU0024RS53	AZ	N	E	1st lift up unit
15	LPLTM0249QSZZ	AC		C	2nd earth plate
19	QACCDR614QCPZ	AS		B	AC cord (U.S.A,Canada,Brazil,LAG2)
	QACCBR421QCPZ	AZ		B	AC cord (U.kingdom,UAE,Yemen,Oman,Qutar,Kuwait,Bahrain)
	QACCER624QCPZ	AW		B	AC cord (Other Countries)
	QACCJR614QCPZ	AW		B	AC cord (Philippines,Taiwan)
	QACCLR421QCPZ	AW	N	B	AC cord (Australia,New Zealand)
	DHAI-0167QSZZ	BA	N	B	AC cord (Saudi Arabia)
	DHAI-0151QSZZ	AU	N	B	AC cord (SRS,SRSSC,South africa,Special Country,India,Hong kong)
20	QSW-C9292QCZZ	AN		B	Power supply switch(AJ8W200B)
28	RDENC0011QSZZ	BY	N	E	Low voltage power supply unit (100V)
	RDENC0011QS11	BY	N	E	Low voltage power supply unit (120V)
	RDENC0011QS12	BY	N	E	Low voltage power supply unit (230V)
29	RDENC0012QSZZ	BN	N	E	High voltage Power supply unit
30	LHLDW1057FCZZ	AB		C	Wire holder(LWS-3S)
31	DHAI-0377QSZZ	AP	N	C	AC switch harness
32	LFX-0016FCZZ	AD		C	AC cord fixer
33	XEBSD40P30000	AA		C	Screw(4x30)
34	XEBSE40P12000	AA		C	Screw(4x12)

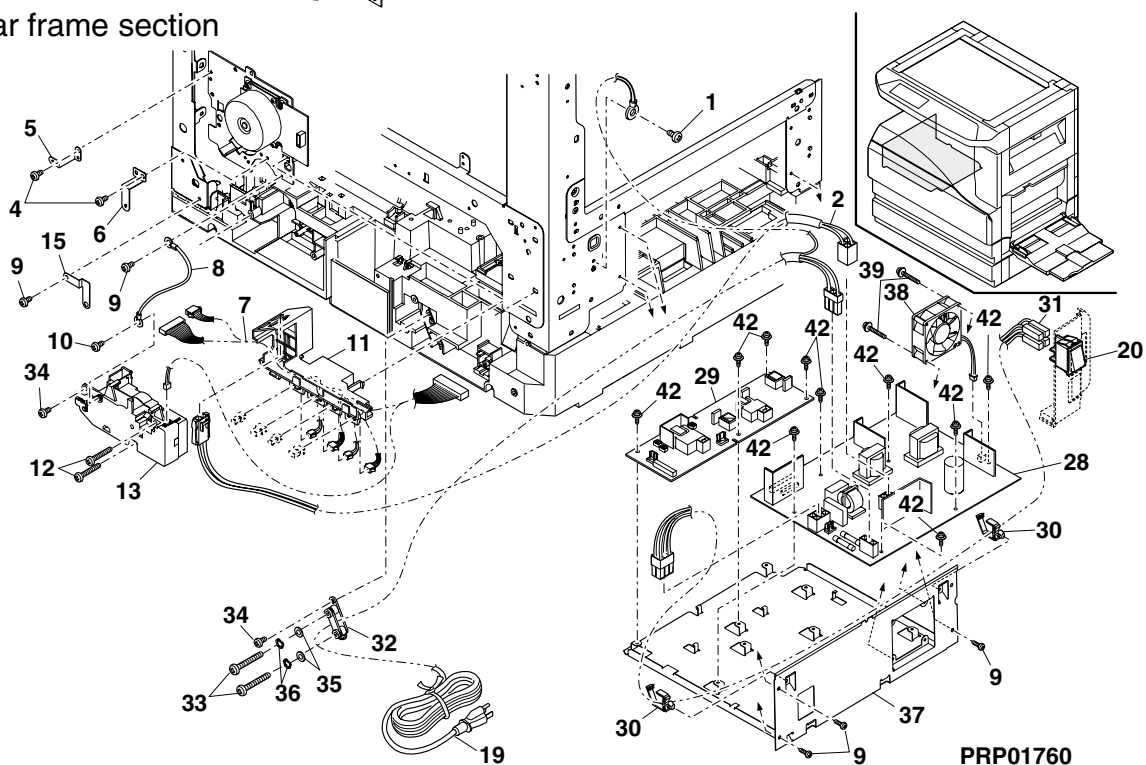
### 30 Rear frame section

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
35	XWHSD40-08100	AA		C	Washer
36	XWSSD40-10000	AA		C	Washer
37	LPLTM0349QSZZ	AS	N	C	Power supply plate
38	NFANP0011QSZZ	AS	N	B	P/S fan motor
39	XBPSD30P30KS0	AA		C	Screw(3x30KS)
42	XBPSD30P08KS0	AA		C	Screw(3x8KS)

### 29 PWB section



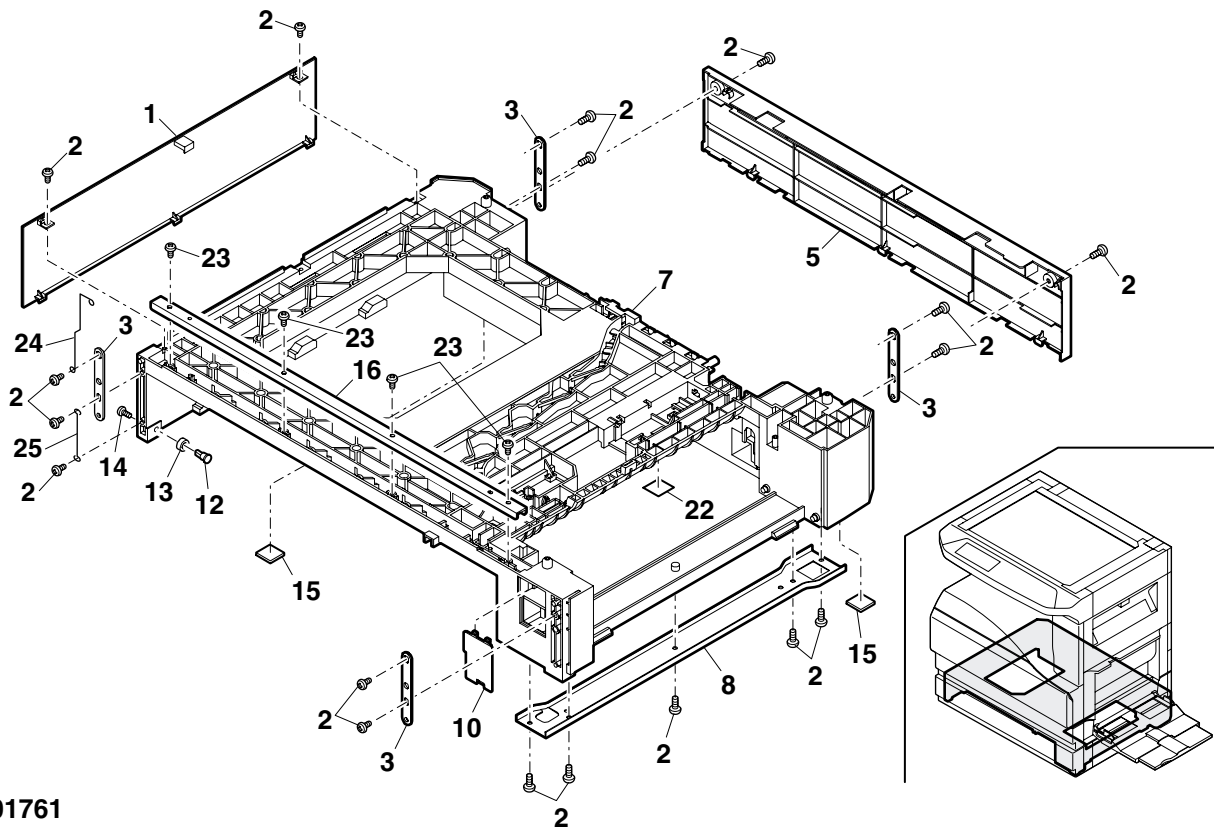
### 30 Rear frame section



### 31 2nd exteriors

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	GCAB-0030QSZ A	AN	N	D	Left cabinet
2	XEBSE40P12000	AA		C	Screw(4×12)
3	LPLTM0240QSZ Z	AC		C	2nd joint plate
5	GCOVA0025QSZ B	AS	N	D	Rear cover
7	LFRM-0039QSZ B	BK	N	D	Frame
8	LPLTM0236QSZ Z	AG		C	2nd reinforce plate R
10	PCOVP0063QSZ B	AD	N	D	Front cover
12	NSFTZ0048QSZ Z	AG		C	Cassette collar shaft
13	NKOM-0005QSZ Z	AC		C	Cassette guide collar
14	XBPSD30P08KS0	AA		C	Screw(3×8KS)
15	GLEGG0064FCZ Z	AC		C	Rubber foot
16	LPLTM0237QSZ Z	AH		C	2nd reinforce plate F
22	PSHEZ0325QSZ Z	AB		C	Frame lower mylar
23	LX-BZ0037QSZ Z	AB	N	C	Screw
24	MSPRD0276QSZ Z	AS		C	Front earth spring (Taiwan)
25	MSPRD0277QSZ Z	AN		C	2nd joint earth spring (Taiwan)

### 31 2nd exteriors

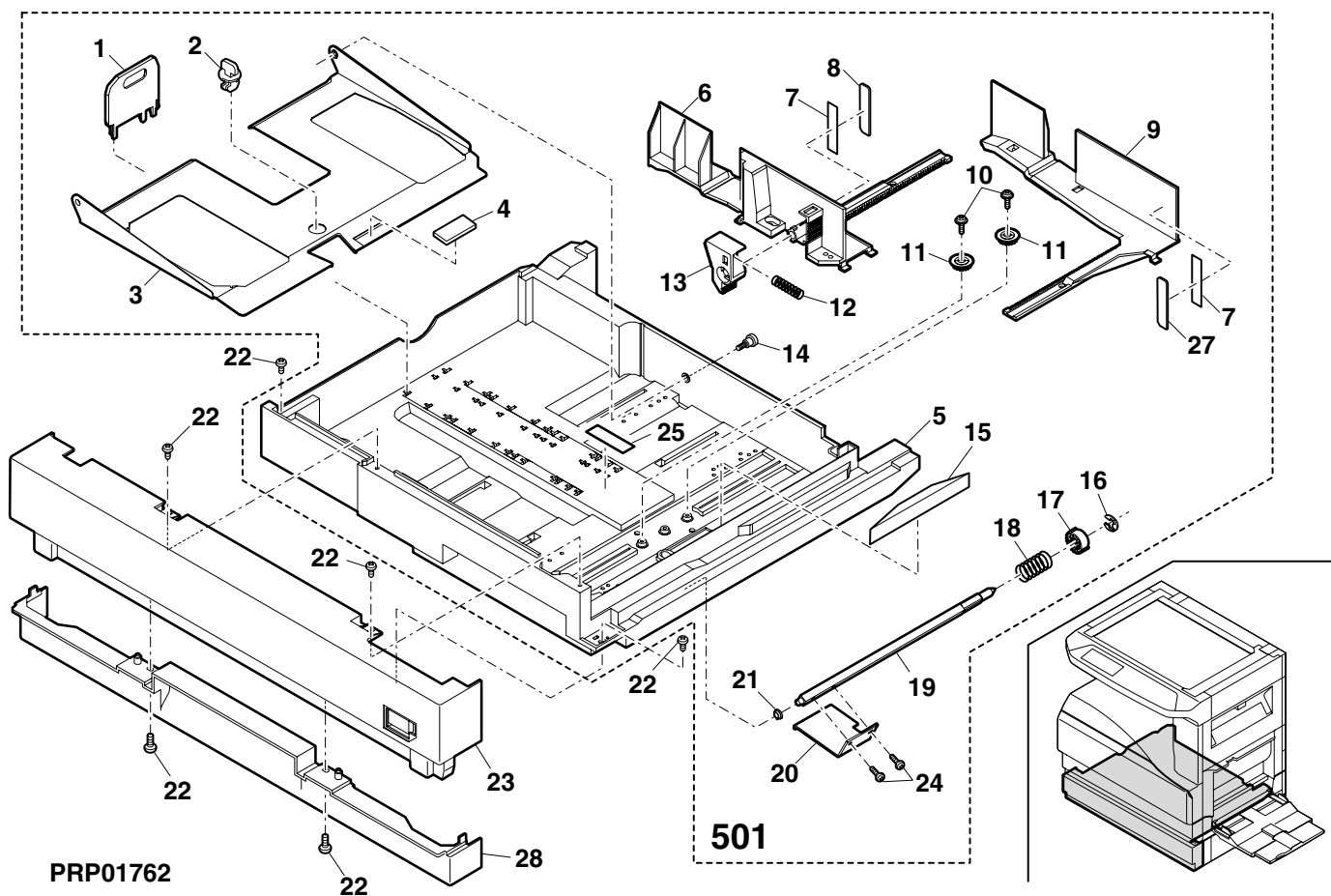


PRP01761

# 32 2nd 550 cassette unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	LPLTP0159QSZZ	AD		C	Cassette rear side plate
2	LHLDW1226FCZZ	AB		C	Turn fastener
3	LPLTM0179QSZ1	AR		C	Rotation plate
4	PSHEZ0274QSZZ	AC		C	Rotation plate sheet
5	GCASP0005QSZZ	BA	N	D	550 cassette
6	PGIDM0070QSZ1	AM		C	Guide F
7	PTPE-0021QSZZ	AD		C	GiD tape
8	LPLTM0181QSZ1	AB		C	Side plate guide F
9	PGIDM0071QSZZ	AL		C	Guide R
10	LX-BZ0884FCZZ	AB		C	Screw
11	NGERH0193FCZZ	AB		C	UC manual feed gear
12	MSPRC2631FCZZ	AC		C	Fusing pressure spring
13	MLEVP0755FCZ1	AE		C	Side plate F lever
14	LX-BZ0833FCZZ	AC		C	Screw
15	CSHEZ0244QS02	AE		C	Cassette mylar
16	XRESP70-08000	AA		C	E type ring
17	NGERH0108QSZZ	AD		C	Lift gear(22T)
18	MSPRC0210QSZZ	AC		C	Lift gear spring
19	NSFTZ0047QSZZ	AP		C	Lift shaft
20	LPLTM0180QSZ1	AE		C	Lift plate
21	NBRGP0041GCZZ	AD		C	Bearing
22	XEBSE40P10000	AA		C	Screw(4x10)
23	JHNDP0005QSZZ	AY	N	C	Cassette panel
24	XBPSD40P08KS0	AA		C	Screw(4x8KS)
25	TLABZ0366QSZZ	AD		C	Label
27	LPLTM0277QSZZ	AC		C	Side plate guide R
28	PCOVP0096QSZZ	AN	N	C	Cassette panel line
(Unit)					
901	CCASP0005RS55	BM	N	E	2nd 550 cassette unit

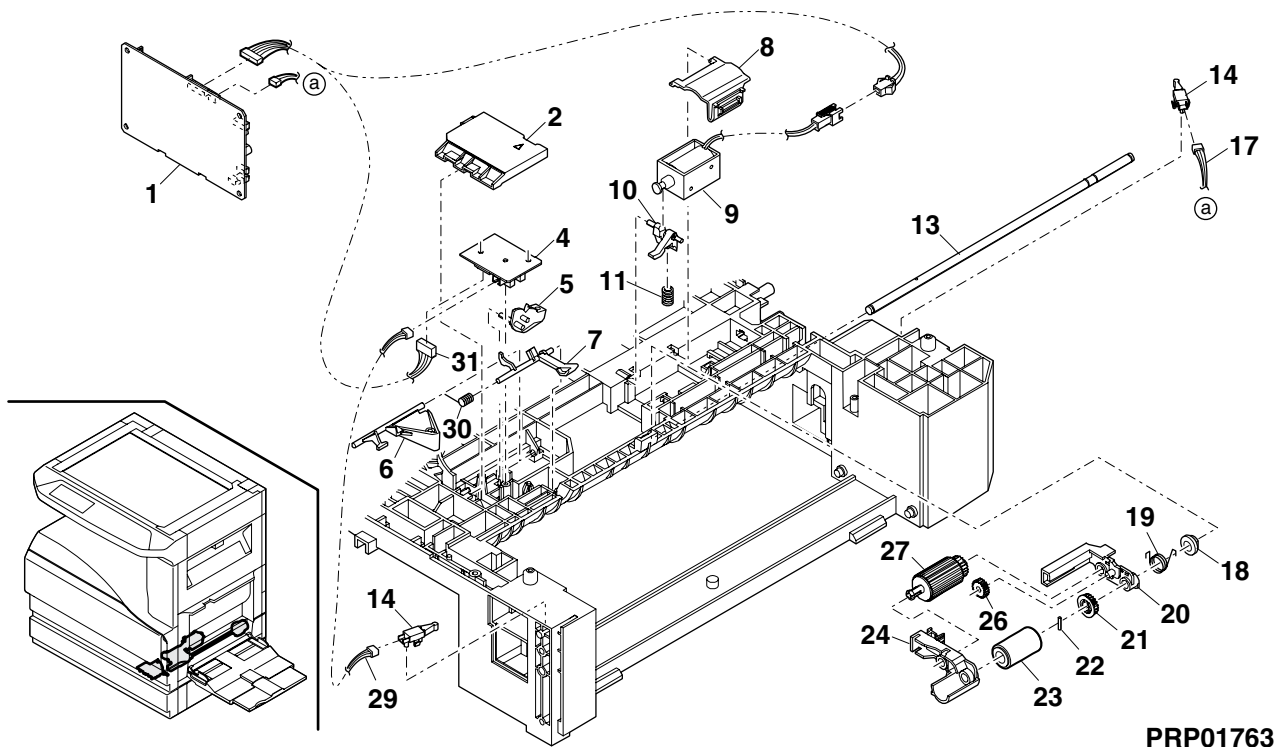
# 32 2nd 550 cassette unit



### 33 2nd paper feed section

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	CPWBF0082QSE1	BB		E	2nd cassette interface PWB
2	PCOVP0070QSZZ	AD		D	Sensor cover
4	CPWBF0095QSE3	AP	N	E	2nd cassette sensor PWB
5	MLEVP0063QSZZ	AD		C	Upper limit detect actuator
6	MLEVP0064QSZZ	AD		C	Paper detect actuator
7	MLEVP0062QSZZ	AC		C	P-IN detect actuator
8	PCOVP0064QSZZ	AD		D	Solenoid cover
9	RPLU-0026QSZ1	AR		B	Paper feed solenoid
10	MARMP0026QSZZ	AD		C	Solenoid arm
11	MSPRC0209QSZ1	AC		C	Solenoid spring
13	NSFTZ0050QSZ1	AH		C	2nd paper feed roller shaft
14	QSW-B0017QSZZ	AF		B	Tray detect switch
17	DHAI-0397QSZZ	AD	N	C	Cassette detect interface harness
18	NBRGC0100FCZ1	AC		C	Bearing 6
19	MSPRD0206QSZZ	AC		C	Pick up roller pressure spring
20	MARMP0021QSZZ	AD		C	Pick up arm R
21	NGERH0107QSZZ	AD		C	Paper feed gear
22	LPIN-0026MCZZ	AA		C	Spring pin(φ2-10)
23	NROLR0055QSZ1	AR		C	Paper feed roller
24	MARMP0019QSZZ	AD		C	Pick up arm F
26	NGERH0990FCZZ	AB		C	Gear(16T)
27	NROLR0054QSZZ	AP		C	Pick up roller
29	DHAI-0394QSZZ	AD	N	C	Door open/close detect harness
30	MSPRD0204QSZZ	AC		C	P-IN detect actuator spring
31	DHAI-0395QSZZ	AG	N	C	Cassette sensor PWB harness

### 33 2nd paper feed section

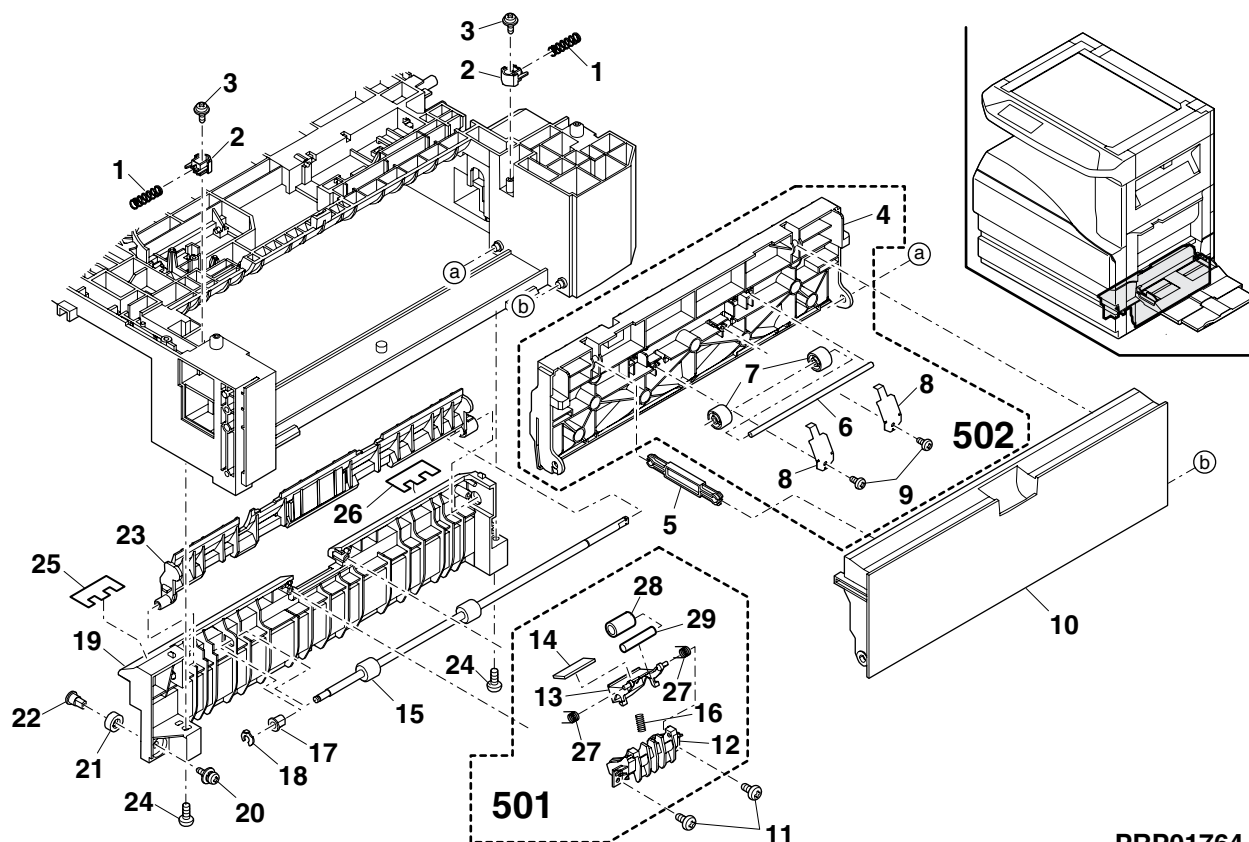




### 34 2nd paper transfer section

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	MSPRC0141QSZZ	AB		C	lock spring
2	MLOKZ0001QSZZ	AC		C	Paper guide lock
3	XEPSD30P08X00	AA		C	Screw(3x8X)
4	PGIDM0068QSZZ	AP		C	Transport paper guide
5	MARMP0015QSZZ	AD		C	Door arm
6	NSFTZ0054QSZZ	AE		C	Transport paper guide shaft
7	NRÖLP1060FCZZ	AF		C	U-turn roller
8	MSPRP0345QSZZ	AD	N	C	Transport paper guide spring
9	XEBSD30P08000	AA		C	Screw(3x8)
10	GCOVA0026QSZB	AP	N	D	Right cover
11	XEBSD30P10000	AA		C	Screw(3x10)
12	PCÖVP0089QSZZ	AD		D	Plate cover
13	LPLTP0297QSZZ	AC		C	Separation plate
14	PSHEZ0378QSZZ	AG		C	Separation sheet
15	NROLR0052QSZZ	AN		C	Transport roller
16	MSPRC0270QSZZ	AB		C	Separation plate spring
17	NBRGZ0503FCZZ	AC		C	Bearing
18	LSTPP0011QSZZ	AC		C	E-ring
19	LRALP0009QSZZ	AQ		C	Cassette rail R
20	XBPSD30P08KS0	AA		C	Screw(3x8KS)
21	NKOM-0005QSZZ	AC		C	Cassette guide collar
22	NSFTZ0048QSZZ	AG		C	Cassette collar shaft
23	PGIDM0074QSZZ	AK		C	2nd U-turn guide
24	XEBSE40P12000	AA		C	Screw(4x12)
25	PSHEZ0301QSZZ	AC		C	Rail R side mylar F
26	PSHEZ0302QSZZ	AC		C	Rail R side mylar R
27	MSPRD0287QSZZ	AC		C	Paper feed assistance roller SP
28	NROLP0087QSZZ	AD		C	Paper feed assistance roller
29	NSFTZ0064QSZZ	AD		C	Paper feed assistance roller shaft
501	CCÖVP0089RS51	AQ		E	Plate cover unit
502	CGIDM0068RS51	AS		E	Transport paper guide unit

### 34 2nd paper transfer section



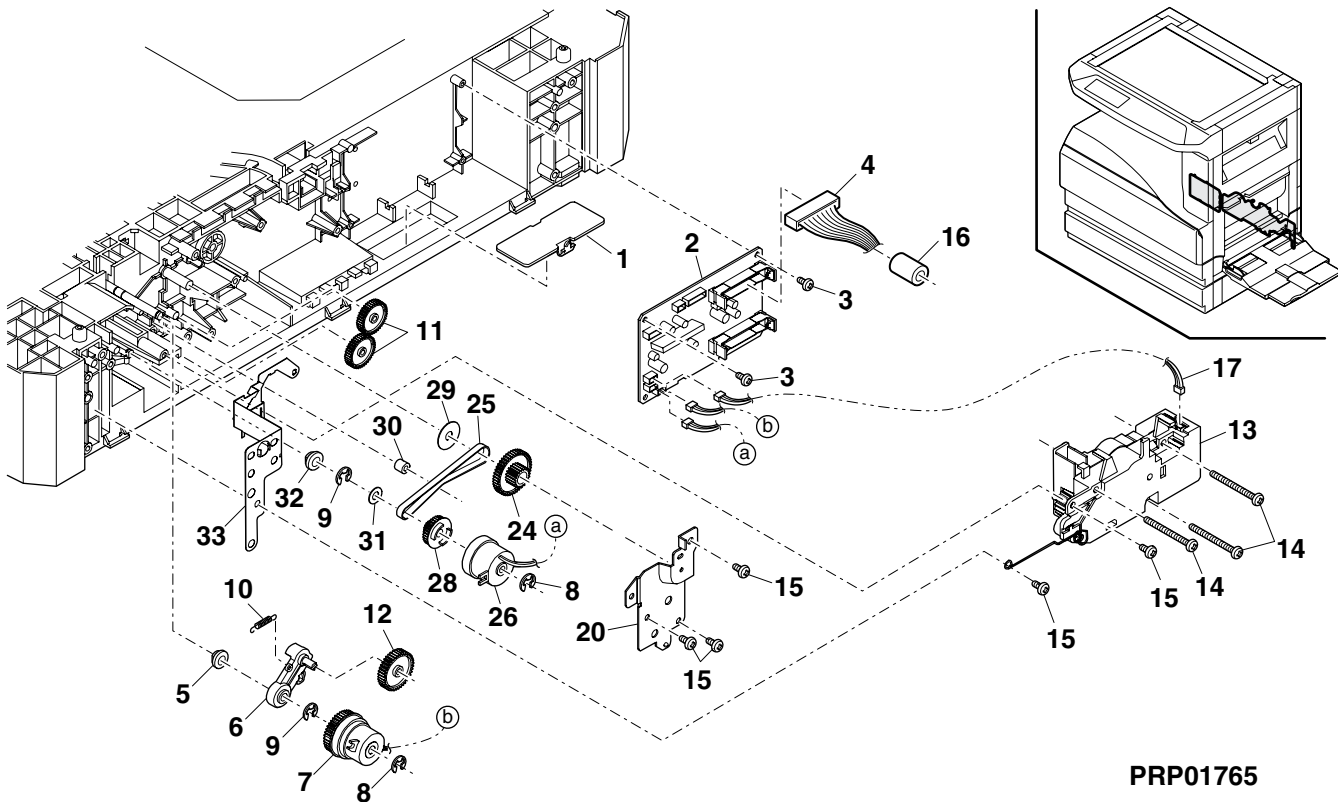
PRP01764



# 35 2nd drive section

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	PCOVP0084QSZZ	AE		C	2nd bottom cover
2	CPWBF0082QSE1	BB		E	2nd cassette interface PWB
3	XEBSD30P08000	AA		C	Screw(3×8)
4	DHAI-0392QSZZ	AU	N	C	2nd harness
5	NBRGC0100FCZ1	AC		C	Bearing 6
6	MARMP0018QSZZ	AD		C	Body joint arm
7	PCLC-0014QSZZ	AS		B	2nd paper feed clutch(42T)
8	XRESP40-06000	AA		C	E type ring
9	XRESP50-06000	AA		C	E type ring
10	MSPRT0203QSZZ	AC		C	Joint spring
11	NGERH0119QSZZ	AD		C	Gear(36T)
12	NGERH1207FCZZ	AF		C	Joint gear(40T)
13	CDAIU0024RS54	AZ	N	E	2nd lift up unit
14	XEBSD40P30000	AA		C	Screw(4×30)
15	XEBSE40P12000	AA		C	Screw(4×12)
16	RCORF1036ACZZ	AP		C	Core
17	DHAI-0396QSZZ	AD	N	C	LUM harness
20	LPLTM0203QSZZ	AF		C	Drive plate
24	NGERH0121QSZZ	AE		C	Gear(20T/45T/26P)
25	NBLTT0029QSZZ	AG		B	Vertical delivery belt
26	PCLC-0011QSZZ	AS		B	Transport clutch
28	NPLYZ0027QSZZ	AD		C	Vertical transport pulley
29	PSHEZ0250QSZZ	AB		C	Frange mylar
30	NROLP0008QSZZ	AD		C	Pulley
31	PSHEZ0249QSZZ	AB		C	Frange mylar
32	NBRGC0529FCZZ	AD		C	Bearing
33	LPLTM0176QSZZ	AH		C	Crutch earth plate

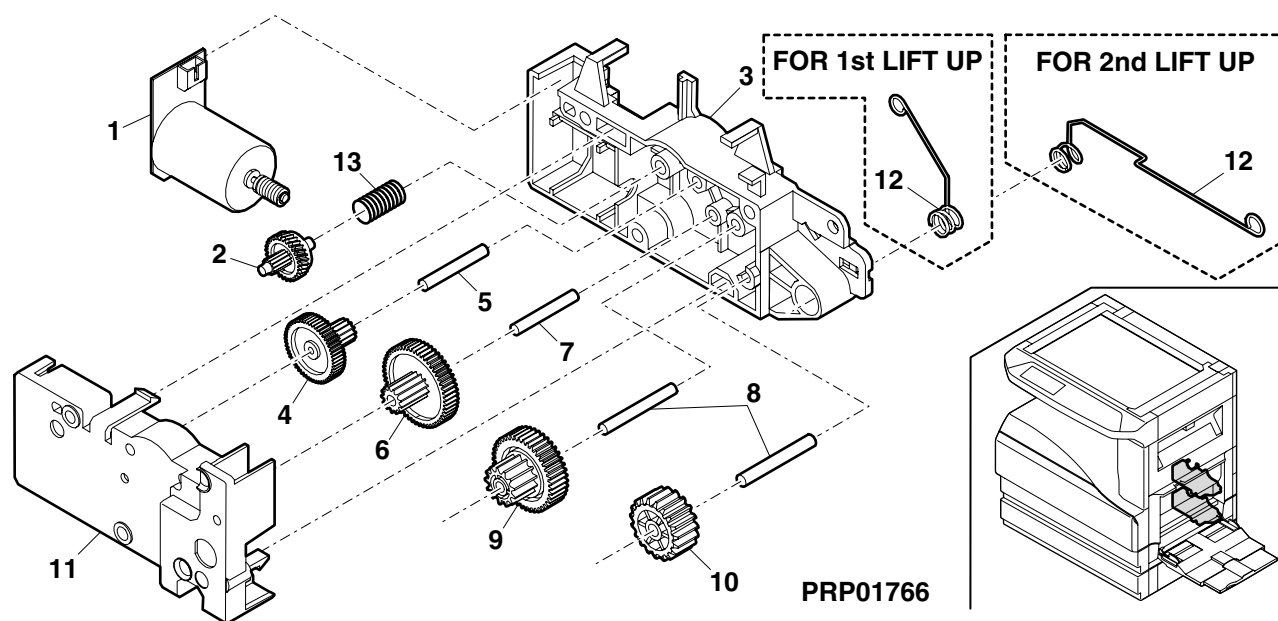
# 35 2nd drive section



### 36 Pick up motor unit

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
1	CMOTV0778FCE3	AU	N	E	Lift up motor unit
2	NGERH0158QSZ1	AE		C	Gear(29T/11T)
3	LDAIU0024QSZ1	AH	N	D	Lift up base
4	NGERH0102QSZZ	AD		C	Gear(53T/14T)
5	NSFTZ0045QSZZ	AC		C	Shaft
6	NGERH0103QSZZ	AE		C	Gear(54T/13T)
7	NSFTZ0044QSZZ	AC		C	Shaft
8	NSFTZ0060QSZZ	AC		C	Shaft
9	NGERH0104QSZZ	AE		C	Gear(13T/42T)
10	NGERH0105QSZZ	AD		C	Gear(19T)
11	PCOVP0061QSZ1	AH		D	Lift up cover
12	MSPRD0208QSZZ	AC		C	1st cassette earth spring
	MSPRD0251QSZZ	AD		C	2nd cassette earth spring
13	MSPRC0263QSZZ	AC		C	Lift up spring
	(Unit)				
901	CDAIU0024RS53	AZ	N	E	1st lift up unit
	CDAIU0024RS54	AZ	N	E	2nd lift up unit

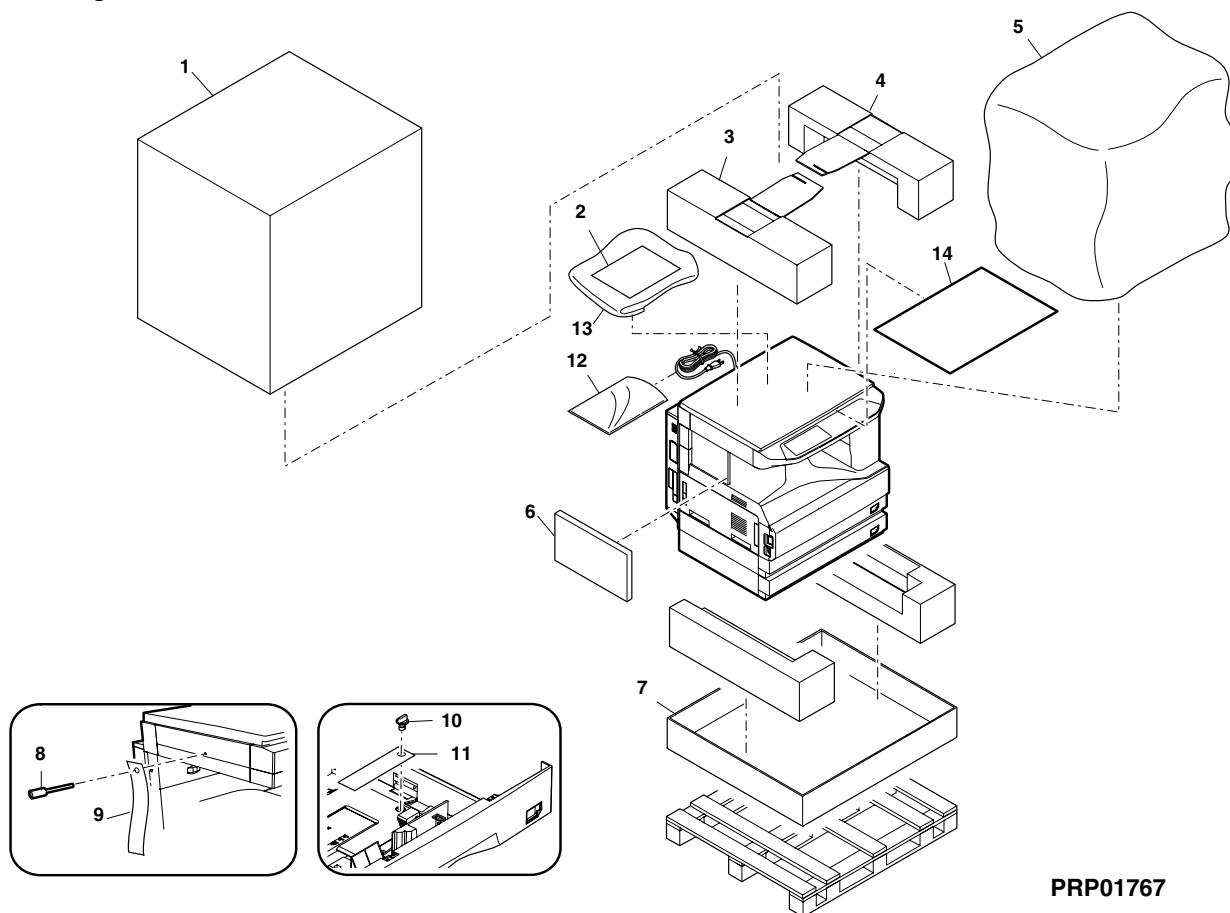
### 36 Pick up motor unit



### 37 Packing material & accessories

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART RANK	DESCRIPTION
2	T I N S E 1 0 0 5 Q S Z Z	AW	N	D	Operation manual (Copy) (English)[U.kingdom]
	T I N S E 1 0 0 3 Q S Z Z	AW	N	D	Operation manual (Copy) (English)[Other Countries]
	T I N S E 1 0 0 1 Q S Z Z	AX	N	D	Operation manual (Copy) (English)[U.S.A]
	T I N S E 1 0 3 1 Q S Z Z	AL	N	D	Operation manual (Key) (English)[U.kingdom]
	T I N S E 1 0 2 9 Q S Z Z	AL	N	D	Operation manual (Key) (English)[Other Countries]
	T I N S E 1 0 2 7 Q S Z Z	AL	N	D	Operation manual (Key) (English)[U.S.A]
	T I N S E 1 0 5 3 Q S Z Z	AL	N	D	Operation manual (Set up) (English)
	T I N S E 1 0 9 1 Q S Z Z	AQ	N	D	Operation manual (NW scanner) (English)
	T I N S F 1 0 0 6 Q S Z Z	AZ	N	D	Operation manual (Copy) (French)
	T I N S F 1 0 3 2 Q S Z Z	AP	N	D	Operation manual (Key) (French)
	T I N S F 1 0 5 5 Q S Z Z	AN	N	D	Operation manual (Set up) (French)
	T I N S F 1 0 9 3 Q S Z Z	AU	N	D	Operation manual (NW scanner) (French)
	T I N S G 1 0 0 8 Q S Z Z	AZ	N	D	Operation manual (Copy) (German)
	T I N S G 1 0 3 4 Q S Z Z	AP	N	D	Operation manual (Key) (German)
	T I N S G 1 0 5 6 Q S Z Z	AN	N	D	Operation manual (Set up) (German)
	T I N S G 1 0 9 5 Q S Z Z	AU	N	D	Operation manual (NW scanner) (German)
	C D S K A 0 0 3 5 Q S 3 2	AW	N	D	CD-ROM (GDI)[U.S.A,Other Countries]
	T C A D Z 0 0 1 5 Q S Z Z	AD	N	D	ECP card (Canada)
	P S H E Z 1 3 9 4 F C Z Z	AC		D	Vinyl sheet
	T L A B H 0 4 8 4 Q S Z Z	AE	N	D	Paper size label (Inch Series)
3	U K O G Z 0 0 0 2 F C Z Z	AD		D	Vinyl gloves
	U Y O K - 0 0 1 1 F C Z Z	AA		D	Vinyl bag
4	C C A S Z 0 0 6 7 F C 0 1	AD		D	Maintenance case
	S P A K A 0 4 8 2 Q S Z Z	AW	N	D	Top packing L (AR-M237/M277)
5	S P A K A 0 4 8 0 Q S Z Z	AW	N	D	Top packing L (AR-M236/M276)
	S P A K A 0 4 8 3 Q S Z Z	AW	N	D	Top packing R (AR-M237/M277)
6	S P A K A 0 4 8 1 Q S Z Z	AW	N	D	Top packing R (AR-M236/M276)
	S S A K Z 0 0 1 9 F C Z Z	AM		D	Vinyl bag
7	S P A K A 0 4 8 5 Q S Z Z	AL	N	D	Scanner reinforce add
8	S P A K A 0 4 8 4 Q S Z Z	BE	N	D	Bottom packing case
9	L X - B Z 0 0 1 5 Q S Z Z	AF		D	2/3 fixing screw
10	T C A D Z 0 0 1 0 Q S Z Z	AC		D	Fixing screw caution card
11	L H L D W 1 2 2 6 F C Z Z	AB		C	Turn fastener
12	T C A D Z 1 2 7 5 F C Z Z	AB		D	Cassett rotation tag
13	S S A K A 3 0 0 1 C C Z Z	AA		D	Vinyl bag(140X360)
14	S S A K A 2 3 4 3 Q C Z Z	AA		D	Vinyl bag(260X380)
101	S P A K A 0 1 3 4 R S Z Z	AL		D	OC protect sheet
	C S H E Z 0 4 3 3 Q S 0 5	AG	N	C	Key sheet (French)[Canada]

### 37 Packing material & accessories



PRP01767

# Index

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
[C]					
CBOX-0001JS5G	21-501	BL	N	E	
CBRC-0004QS03	27-29	AF		C	
CBRC-0004RS51	27-502	BA		E	
CBTN-0068QS01	9-18	AF	N	C	
CBTN-0069QS02	9-17	AF	N	C	
CBTN-0070QS01	9-19	AN	N	C	
CBTN-0071QS01	9-20	AM	N	C	
CBTN-0071QS02	9-20	AM	N	C	
CCAB-0077RS51	6-501	AZ	N	E	
CCAB-0082QS01	2-23	AP	N	D	
CCASP0005RS55	32-901	BM	N	E	
CCASP0006RS51	15-901	BL	N	E	
CCASZ0067FC01	37-2	AD		D	
CCOV-0051QS01	2-26	AX	N	D	
CCOV-0051QS02	2-26	AX	N	D	
CCOV-0051QS07	2-26	AX	N	D	
CCOV-0051QS08	2-26	AX	N	D	
CCOVP0053RS53	17-502	AW		E	
CCOVP0072RS54	21-502	AP		E	
CCOVP0089RS51	34-501	AQ		E	
CDAIU0012QS11	12-2	BH	N	D	
"	13-8	BH	N	D	
CDAIU0024RS53	30-13	AZ	N	E	
"	36-901	AZ	N	E	
CDAIU0024RS54	35-13	AZ	N	E	
"	36-901	AZ	N	E	
CDOR-0002RS58	18-901	BH	N	E	
CDSKA0035QS32	37-2	AW	N	D	
CFILW0282FC02	9-22	AK	N	D	
CFILW0283FC02	9-23	AH	N	D	
CFILW0284FC02	9-21	AF	N	D	
CFIX-0013QS05	1-3	AN	N	D	
CFRM-0038RS57	26-901	BT	N	E	
"	27-901	BT	N	E	
CFRM-0038RS58	26-901	BT	N	E	
"	27-901	BT	N	E	
CFRM-0043QS02	10-4	AX		D	
CFRM-0044QS02	10-23	BB		C	
CFRM-0047RS51	28-502	AV		E	
CFRM-0048RS53	20-901	BH	N	E	
CFRM-0049RS54	22-901	BK		E	
CFRM-0049RS58	22-901	BK	N	E	
CFRM-0049RS61	22-6	AZ		D	
CFRM-0049RS69	22-6	AZ		D	
CFRM-0069RS51	6-901	BK	N	E	
CGIDM0067RS51	17-501	AY		E	
CGIDM0068RS51	34-502	AS		E	
CGIDM0072RS64	28-501	BB	N	E	
CGIDM0106RS51	4-7	BL	N	E	
"	7-501	BL	N	E	
"	8-501	BL	N	E	
CGIDM0116QS02	1-7	AK		C	
CHAI-0356RS51	14-7	AL	N	C	
CHAI-0357RS51	14-8	AL	N	C	
CHLDZ0035RS53	22-31	AZ		E	
CHLDZ0105RS51	9-501	AU	N	E	
CLNS-0003RS54	13-28	BQ	N	E	
CMOTV0778FCE3	36-1	AU	N	E	
CPiPP0015RS51	22-501	AP		E	
CPLTM0084QS02	12-17	AK		C	
CPLTM0160QS01	25-3	AU		C	
CPLTM0160RS53	14-67	BN	N	E	
"	25-901	BN	N	E	
CPLTM0161QS01	25-20	AN		C	
CPLTM0168QS02	10-6	AK	N	C	
CPLTM0184QS02	27-3	AG		C	
CPLTM0184RS52	27-501	AZ	N	E	
CPLTM0216QS01	28-2	AH		C	
CPLTM0323RS51	8-502	AY	N	E	
CPLTM0336QS01	23-31	AR	N	C	
CPLTM0342QS01	10-42	AH	N	C	
CPLTM0345QS01	20-27	AG	N	C	
CPNLH0029QS05	9-25	AY	N	D	
CPNLH0029QS06	9-25	AY	N	D	
CPNLH0029RS55	9-901	BY	N	D	
CPWBF0081QSE2	16-2	AP	N	E	
CPWBF0082QSE1	33-1	BB		E	
"	35-2	BB		E	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
CPWBF0083QSE5	13-7	AU		E	
"	20-48	AU		E	
"	26-18	AU		E	
CPWBF0095QSE3	33-4	AP	N	E	
CPWBF0106QSE4	19-17	AP	N	E	
CPWBF0138QSE1	29-4	BD	N	E	
CPWBF0139QSE1	5-1	BA	N	E	
CPWBF0145QSE1	9-15	AX	N	E	
CPWBF1501FCE2	4-24	AS	N	E	
CPWBN0135QS31	29-33	CF	N	E	
CPWBN0137QSE1	29-13	AZ	N	E	
CPWBN0146QSE2	9-3	BU	N	E	
CPWBX0134QS31	29-10	CF	N	E	
CPWBX0136QS31	29-1	CG	N	E	
CREFL0004QS33	11-901	BL		E	
"	12-8	BL		E	
CSFTB0073QS01	6-34	AF	N	E	
CSFTZ0023QS01	26-21	AH		C	
CSHEZ0244QS02	32-15	AE		C	
CSHEZ0433QS05	37-101	AG	N	C	
CSOU-0024RS55	19-901	BK	N	E	
CSOU-0037RS51	4-501	BQ	N	E	
"	5-501	BQ	N	E	
CSOU-0038RS51	4-502	BF	N	E	
CSW-M0007RS56	14-36	AP	N	B	
CTME-0021RS51	22-502	AK		E	
[D]					
DHAI-0151QSZZ	30-19	AU	N	B	
DHAI-0167QSZZ	30-19	BA	N	B	
DHAI-0200QSZZ	11-9	AS		C	
"	29-37	AS		C	
DHAI-0314QSZZ	21-50	AH	N	C	
DHAI-0345QSZZ	13-30	AG	N	C	
"	29-22	AG	N	C	
DHAI-0346QSZZ	13-4	AP	N	C	
"	29-38	AP	N	C	
DHAI-0347QSZZ	13-4	AN	N	C	
"	29-38	AN	N	C	
DHAI-0348QSZZ	29-42	AH	N	C	
DHAI-0350QSZZ	16-21	AG	N	C	
DHAI-0353QSZZ	14-14	AH	N	C	
"	29-28	AH	N	C	
DHAI-0354QSZZ	14-55	AG	N	C	
DHAI-0355QSZZ	14-56	AG	N	C	
DHAI-0359QSZZ	19-13	AP	N	C	
DHAI-0360QSZZ	20-49	AE	N	C	
DHAI-0361QSZZ	9-5	AE	N	C	
DHAI-0362QSZZ	9-14	AD	N	C	
DHAI-0364QSZZ	26-19	AP	N	C	
"	27-10	AP	N	C	
"	29-35	AP	N	C	
DHAI-0365QSZZ	28-10	AH	N	C	
DHAI-0366QSZZ	23-9	AL	N	C	
DHAI-0367QSZZ	23-10	AF	N	C	
DHAI-0368QSZZ	23-7	AD	N	C	
DHAI-0370QSZZ	3-11	AF	N	C	
DHAI-0371QSZZ	29-40	AR	N	C	
"	30-7	AR	N	C	
DHAI-0372QSZZ	29-6	AE	N	C	
DHAI-0373QSZZ	14-10	AS	N	C	
"	29-39	AS	N	C	
DHAI-0374QSZZ	29-44	AX	N	C	
DHAI-0375QSZZ	30-2	AM	N	C	
DHAI-0376QSZZ	25-25	AD	N	C	
DHAI-0377QSZZ	30-31	AP	N	C	
DHAI-0378QSZZ	30-8	AC	N	C	
DHAI-0381QSZZ	29-43	AH	N	C	
DHAI-0382QSZZ	5-3	BA	N	C	
DHAI-0384QSZZ	7-18	AR	N	C	
"	8-2	AR	N	C	
DHAI-0386QSZZ	4-35	AK	N	C	
DHAI-0387QSZZ	6-44	AH	N	C	
DHAI-0388QSZZ	5-13	AE	N	C	
DHAI-0390QSZZ	6-22	AC	N	C	
DHAI-0392QSZZ	29-29	AU	N	C	
"	35-4	AU	N	C	
DHAI-0394QSZZ	33-29	AD	N	C	
DHAI-0395QSZZ	29-41	AG	N	C	
"	33-31	AG	N	C	
DHAI-0396QSZZ	35-17	AD	N	C	
DHAI-0397QSZZ	33-17	AD	N	C	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
DHA i -0398QSZZ	17- 20	AE	N	C	
DHA i -0399QSZZ	16- 31	AF	N	C	
DUNTK0034QSZZ	11- 8	BC		C	
DUNTK0384RSZZ	14- 1	BW	N	E	
DUNTW0375RS12	23-901	BZ	N	E	
"	24-901	BZ	N	E	
[G]					
GCAB-0030QSA	31- 1	AN	N	D	
GCAB-0039QSZB	2- 16	AX	N	D	
GCAB-0042QSZB	2- 1	AQ	N	D	
GCAB-0043QSZB	2- 6	AN	N	D	
GCAB-0074QSZZ	4- 9	AK	N	D	
GCAB-0075QSZZ	4- 1	AR	N	D	
GCAB-0076QSZZ	6- 1	AP	N	D	
GCAB-0077QSZZ	6- 24	AQ	N	D	
GCAB-0078QSZZ	4- 20	AV	N	D	
GCAB-0080QSZZ	1- 2	AN	N	D	
GCAB-0081QSZZ	1- 1	AN	N	D	
GCAB-0083QSZZ	2- 24	AW	N	D	
GCAB-0084QSZZ	1- 6	AV	N	D	
GCAB-0085QSZZ	2- 8	AZ	N	D	
GCAB-0086QSZZ	9- 24	AV	N	D	
GCASP0005QSZZ	32- 5	BA	N	D	
GCASP0006QSZZ	15- 5	BA	N	D	
GCOV-0029QSZZ	2- 4	AR	N	D	
GCOV-0031QSZZ	2- 10	AK		D	
GCOV-0034QSZB	2- 9	AK	N	D	
GCOV-0042QSZZ	2- 38	AK		D	
GCOV-0043QSZZ	2- 17	AS		D	
GCOV-0052QSZZ	2- 21	AY	N	D	
GCOV-0053QSZZ	2- 22	AG	N	D	
GCOV-0054QSZZ	2- 20	AX	N	D	
GCOV-0055QSZZ	2- 19	AN	N	D	
GCOV-0056QSZZ	2- 5	AH	N	D	
GCOV-0057QSZZ	9- 1	AT	N	D	
GCOVA0025QSZB	31- 5	AS	N	D	
GCOVA0026QSZB	34- 10	AP	N	D	
GDOR-0002QSZZ	18- 2	AY		D	
GDOR-0003QSZZ	2- 13	AP		D	
GLEGG0064FCZZ	31- 15	AC		C	
[H]					
HPNLH0030QSZZ	9- 7	BC	N	D	
[J]					
JHNDP0004QSZZ	15- 23	AV	N	C	
JHNDP0005QSZZ	32- 23	AY	N	C	
JKNBZ0006QSZZ	14- 40	AD		C	
JKNBZ0009QSZZ	7- 37	AE	N	D	
[L]					
LANGF0013QSZZ	21- 47	AD		C	
LBNDJ0013FCZ1	14- 69	AE		C	
"	20- 43	AE		C	
LBNDZ0002QSZZ	2- 25	AC	N	C	
LBOSZ1508FCZZ	20- 14	AG		C	
LBOSZ1510FCZZ	20- 17	AF		C	
LBRC-0002QSZZ	27- 15	AD		C	
LBRC-0003QSZZ	26- 5	AD		C	
LBRC-0012QSZZ	17- 44	AD		C	
LBSHZ0006QSZZ	20- 51	AC		C	
LBSHZ0303FCZZ	18- 4	AC		C	
"	20- 13	AC		C	
"	26- 25	AC		C	
"	27- 16	AC		C	
"	28- 23	AC		C	
LCRA-0002QSZZ	13- 17	AC		C	
LDA i -0023QSZB	10- 11	BH	N	D	
LDA i U0024QSZZ	36- 3	AH	N	D	
LF i X-0009QSZZ	11- 10	AF		D	
LF i X-0011QSZB	1- 8	AP	N	D	
LF i X-0012QSZB	1- 17	AK	N	D	
LF i X-0014QSZZ	22- 19	AE		C	
LF i X-0015QSZZ	22- 19	AE		C	
LF i X-0016FCZZ	30- 32	AD		C	
LFRM-0037QSZZ	14- 43	BA	N	D	
LFRM-0039QSZB	31- 7	BK	N	D	
LFRM-0040QSZZ	18- 16	AV		D	
LFRM-0047QSZZ	28- 5	AG		D	
LFRM-0048QSZZ	20- 37	AT	N	D	
LFRM-0058QSZZ	28- 6	AG		D	
LFRM-0069QSZZ	6- 36	AQ	N	C	
LFRM-0071QSZZ	23- 23	AY	N	D	
LFRM-0072QSZZ	24- 16	AU	N	D	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
LHLD R0072QSZZ	21- 31	AC		C	
LHLDW0086QSZZ	23- 11	AB		C	
"	29- 9	AB		C	
LHLDW1009ACZZ	13- 5	AA		C	
LHLDW1057FCZZ	30- 30	AB		C	
LHLDW1061FCZZ	10- 14	AB		C	
LHLDW1226FCZZ	15- 2	AB		C	
"	32- 2	AB		C	
"	37- 10	AB		C	
LHLDW1334FCZZ	27- 34	AA		C	
LHLDZ0001YSZZ	21- 35	AD		C	
LHLDZ0047QSZZ	11- 3	AW		C	
LHLDZ0056QSZZ	12- 10	AC		C	
LHLDZ0057QSZZ	14- 9	AH		C	
LHLDZ0058QSZZ	26- 12	AR		C	
LHLDZ0062QSZZ	29- 7	AT		C	
LHLDZ0065QSZZ	14- 37	AF		C	
LHLDZ0066QSZZ	19- 10	AD		C	
LHLDZ0070QSZZ	29- 16	AX	N	C	
LHLDZ0071QSZZ	29- 12	AG		C	
LHLDZ0084QSZZ	18- 20	AF		C	
LHLDZ0085QSZZ	14- 28	AE		C	
LHLDZ0090QSZZ	22- 36	AC		C	
LHLDZ0094QSZZ	17- 38	AC		C	
LHLDZ0101QSZZ	5- 23	AE	N	C	
LHLDZ0102QSZZ	7- 27	AC	N	C	
LHLDZ0103QSZZ	8- 28	AC	N	C	
LHLDZ0104QSZZ	13- 19	AD	N	C	
LHLDZ0105QSZZ	9- 9	AG	N	C	
LHLDZ7021XCZZ	13- 25	AD		C	
LP i N-0026MCZZ	16- 16	AA		C	
"	33- 22	AA		C	
LP i NS0014QSBZ	9- 27	AF		C	
LP i NS0014QSCZ	9- 26	AF		C	
LP i NS0133FCZZ	18- 6	AA		C	
LP i NS0258FCZZ	27- 19	AA		C	
LP i NS0300FCZZ	14- 52	AD		C	
LP i NS0301FCZZ	14- 52	AD		C	
LP i NS0327FCZZ	5- 25	AC		C	
LPLTM0001YSZZ	21- 25	AN		C	
LPLTM0002YSZZ	21- 26	AP		C	
LPLTM0090QSZZ	18- 28	AE		C	
LPLTM0091QSZZ	18- 29	AE		C	
LPLTM0102QSZZ	18- 19	AD		C	
LPLTM0111QSZZ	5- 4	AC		C	
LPLTM0149QSZZ	14- 16	AD		C	
LPLTM0162QSZZ	30- 5	AC		C	
LPLTM0163QSZZ	10- 1	AK		C	
LPLTM0165QSZZ	10- 20	AS	N	C	
LPLTM0166QSZZ	10- 22	AC		C	
LPLTM0176QSZZ	35- 33	AH		C	
LPLTM0179QSZZ	15- 3	AR		C	
"	32- 3	AR		C	
LPLTM0180QSZZ	15- 20	AE		C	
"	32- 20	AE		C	
LPLTM0181QSZZ	15- 8	AB		C	
"	32- 8	AB		C	
LPLTM0194QSZZ	14- 45	AC		C	
LPLTM0195QSZZ	26- 9	AC		C	
LPLTM0203QSZZ	35- 20	AF		C	
LPLTM0232QSZZ	10- 3	AU	N	C	
LPLTM0236QSZZ	31- 8	AG		C	
LPLTM0237QSZZ	31- 16	AH		C	
LPLTM0240QSZZ	31- 3	AC		C	
LPLTM0241QSZZ	22- 4	AF		C	
LPLTM0248QSZZ	14- 29	AE		C	
LPLTM0249QSZZ	30- 15	AC		C	
LPLTM0251QSZZ	10- 24	AE		C	
LPLTM0252QSZZ	30- 6	AD		C	
LPLTM0276QSZZ	17- 35	AE		C	
LPLTM0277QSZZ	15- 27	AC		C	
"	32- 27	AC		C	
LPLTM0316QSZZ	5- 32	AH	N	C	
LPLTM0318QSZZ	6- 12	AC	N	C	
LPLTM0322QSZZ	8- 29	AF	N	C	
LPLTM0323QSZZ	8- 31	AG	N	C	
LPLTM0325QSZZ	7- 16	AH	N	C	
LPLTM0326QSZZ	7- 43	AM	N	C	
LPLTM0327QSZZ	7- 9	AD	N	C	
LPLTM0331QSZZ	9- 30	AC	N	C	
LPLTM0332QSZZ	10- 46	AE	N	C	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
LPLTM0333QSZZ	10- 16	AX	N	C	
LPLTM0334QSZZ	23- 16	AE	N	C	
LPLTM0335QSZZ	23- 22	AF	N	C	
LPLTM0337QSZZ	23- 25	AC	N	C	
LPLTM0338QSZZ	23- 13	AC	N	C	
LPLTM0339QSZZ	23- 20	AC	N	C	
LPLTM0340QSZZ	24- 9	AC	N	C	
LPLTM0344QSZZ	24- 7	AC	N	C	
LPLTM0346QSZZ	9- 29	AC	N	C	
LPLTM0349QSZZ	30- 37	AS	N	C	
LPLTM4715FCZ1	11- 14	AF		C	
LPLTM6022FCZZ	21- 20	AC		C	
LPLTP0056QSZZ	20- 39	AD		C	
LPLTP0117QSZZ	5- 40	AM		C	
LPLTP0131QSZZ	7- 36	AD		C	
LPLTP0159QSZZ	15- 1	AD		C	
"	32- 1	AD		C	
LPLTP0185QSZZ	26- 13	AL		C	
LPLTP0230QSZZ	13- 13	AF		C	
LPLTP0234QSZZ	19- 15	AE		C	
LPLTP0297QSZZ	17- 24	AC		C	
"	34- 13	AC		C	
LPLTP0319QSZZ	4- 33	AH	N	C	
LPLTP0320QSZZ	4- 34	AH	N	C	
LPLTP0321QSZZ	4- 19	AE	N	C	
LPLTP0324QSZZ	7- 41	AH	N	C	
LPLTP0328QSZZ	7- 5	AC	N	C	
LPLTP0348QSZZ	17- 13	AC		C	
LRALM0006QSZZ	12- 13	AG		C	
LRALM0007QSZZ	12- 12	AG		C	
LRALP0004QSZZ	18- 31	AH		C	
LRALP0008QSZZ	17- 18	AQ		C	
LRALP0009QSZZ	34- 19	AQ		C	
LSOU-0024QSZZ	19- 4	AT	N	D	
LSOU-0025QSZZ	19- 18	AS	N	D	
LSOU-0026QSZZ	19- 11	AU	N	D	
LSOU-0027QSZZ	19- 20	AT	N	D	
LSOU-0037QSZZ	4- 14	BE	N	C	
"	5- 43	BE	N	C	
LSOU-0038QSZZ	4- 31	AW	N	C	
LSOU-0039QSZZ	4- 21	AN	N	C	
LSOU-0040QSZZ	3- 14	BB	N	D	
LSOU-0041QSZZ	4- 32	AP	N	C	
LSTPP0003QSZZ	27- 6	AC		C	
LSTPP0010QSZZ	14- 33	AD		C	
LSTPP0011QSZZ	20- 52	AC		C	
"	34- 18	AC		C	
LSTPP0015QSZZ	6- 47	AC	N	C	
LSTPP0016QSZZ	4- 4	AC	N	C	
"	6- 21	AC	N	C	
LSTPP0017QSZZ	23- 18	AF	N	C	
LX-BZ0004QSZZ	12- 11	AB		C	
"	13- 29	AB		C	
LX-BZ0015QSZZ	37- 8	AF		D	
LX-BZ0020QSZZ	14- 15	AB		C	
LX-BZ0024QSZZ	12- 34	AA		C	
"	1- 5	AA		C	
"	2- 37	AA		C	
"	29- 15	AA		C	
LX-BZ0026QSZZ	21- 36	AD		C	
LX-BZ0030QSZZ	3- 12	AC		C	
LX-BZ0031GCZZ	13- 33	AB		C	
LX-BZ0031QSZZ	29- 8	AC		C	
LX-BZ0032QSZZ	18- 38	AB		C	
LX-BZ0037QSZZ	31- 23	AB	N	C	
LX-BZ0040QSZZ	23- 17	AC	N	C	
LX-BZ0049FCZZ	12- 25	AB		C	
LX-BZ0324FCZZ	12- 28	AA		C	
LX-BZ0406FCZZ	22- 37	AA		C	
LX-BZ0780FCZZ	26- 35	AC		C	
LX-BZ0833FCZZ	15- 14	AC		C	
"	32- 14	AC		C	
LX-BZ0884FCZZ	15- 10	AB		C	
"	32- 10	AB		C	
LX-NZ0002QSZZ	23- 6	AA	N	C	
LX-RZ0001QSZZ	22- 27	AB		C	
LX-WZ0001QSZZ	23- 37	AC		C	
LX-WZ0119FCZZ	12- 31	AA		C	
LX-WZ0329FCZZ	22- 26	AB		C	
LX-WZ7021SCZZ	23- 21	AA		C	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
[M]					
MARMM0047QSZZ	6- 20	AE	N	C	
MARMP0006QSZZ	20- 19	AD		C	
MARMP0008QSZZ	20- 38	AH		C	
MARMP0009QSZZ	20- 8	AF		C	
MARMP0015QSZZ	34- 5	AD		C	
MARMP0018QSZZ	35- 6	AD		C	
MARMP0019QSZZ	16- 11	AD		C	
"	33- 24	AD		C	
MARMP0021QSZZ	16- 15	AD		C	
"	33- 20	AD		C	
MARMP0025QSZZ	14- 5	AD		C	
MARMP0026QSZZ	16- 9	AD		C	
"	33- 10	AD		C	
MARMP0027QSZZ	20- 36	AE		C	
MARMP0041QSZZ	20- 18	AE		C	
MARMP0043QSZZ	18- 9	AC		C	
MARMP0044QSZZ	6- 35	AF	N	C	
MARMP0045QSZZ	6- 49	AC	N	C	
MARMP0046QSZZ	6- 31	AD	N	C	
MARMP0048QSZZ	23- 1	AF	N	C	
MCAMP0003QSZZ	20- 21	AD		C	
MHNG-0021QSZZ	4- 10	AX	N	C	
MHNG-0022QSZZ	4- 11	AX	N	C	
MLEVF0093QSZZ	5- 11	AE	N	C	
MLEVP0023QSZZ	17- 11	AE		C	
MLEVP0035QSE1	19- 16	AC		C	
MLEVP0036QSZZ	5- 10	AD		C	
MLEVP0044QSZZ	17- 12	AE		C	
MLEVP0055QSZZ	26- 15	AC		C	
MLEVP0056QSZZ	16- 5	AC		C	
MLEVP0057QSZZ	17- 22	AC		C	
MLEVP0058QSEZ	18- 1	AD	N	C	
MLEVP0062QSZZ	33- 7	AC		C	
MLEVP0063QSZZ	16- 4	AD		C	
"	33- 5	AD		C	
MLEVP0064QSZZ	16- 3	AD		C	
"	33- 6	AD		C	
MLEVP0065QSZZ	22- 5	AE		C	
MLEVP0067QSZZ	28- 25	AC		C	
MLEVP0068QSZZ	3- 10	AC		C	
MLEVP0069QSZZ	2- 12	AD		C	
MLEVP0071QSZZ	14- 35	AD		C	
MLEVP0077QSZZ	13- 16	AC		C	
MLEVP0092QSZZ	5- 16	AC	N	C	
MLEVP0095QSZZ	7- 30	AD	N	C	
MLEVP0096QSZZ	6- 48	AC	N	C	
MLEVP0097QSZZ	6- 46	AC	N	C	
MLEVP0098QSZZ	4- 22	AC	N	C	
MLEVP0099QSZZ	23- 34	AF	N	C	
MLEVP0100QSZZ	23- 2	AE	N	C	
MLEVP0101QSZZ	23- 3	AE	N	C	
MLEVP0104QSZZ	20- 50	AD	N	C	
MLEVP0755FCZ1	15- 13	AE		C	
"	32- 13	AE		C	
MLNKP0001QSZZ	6- 4	AD	N	C	
MLOKZ0001QSZZ	34- 2	AC		C	
MSL i-0138FCZZ	11- 4	AC		C	
MSPRC0040QSZZ	12- 16	AB		C	
MSPRC0045QSZZ	22- 14	AA		C	
MSPRC0063QSZZ	7- 17	AB		C	
MSPRC0141QSZZ	34- 1	AB		C	
MSPRC0153QSZZ	7- 34	AB		C	
MSPRC0195QSZZ	14- 48	AB		C	
MSPRC0200QSZZ	25- 4	AB		C	
MSPRC0209QSZZ	16- 24	AC		C	
"	33- 11	AC		C	
MSPRC0210QSZZ	15- 18	AC		C	
"	32- 18	AC		C	
MSPRC0213QSZZ	22- 30	AB		C	
MSPRC0220QSZZ	14- 34	AB		C	
MSPRC0250QSZZ	19- 6	AC		C	
"	4- 27	AC		C	
MSPRC0262QSZZ	25- 21	AC		C	
MSPRC0263QSZZ	36- 13	AC		C	
MSPRC0270QSZZ	17- 26	AB		C	
"	34- 16	AB		C	
MSPRC0271QSZZ	14- 63	AC		C	
MSPRC0291QSZZ	17- 4	AC		C	
MSPRC0292QSZZ	17- 39	AC		C	
MSPRC0295QSZZ	18- 23	AF		C	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
MSPRC0296QSZZ	18- 22	AF		C	
MSPRC0301QSZZ	17- 14	AD	N	C	
MSPRC0307QSZZ	5- 34	AC	N	C	
MSPRC0323QSZZ	23- 24	AC	N	C	
MSPRC0324QSZZ	24- 3	AC	N	C	
MSPRC0325QSZZ	24- 6	AB	N	C	
MSPRC0346QSZZ	8- 34	AC	N	C	
MSPRC0348QSZZ	18- 18	AD	N	C	
MSPRC0349QSZZ	18- 17	AD	N	C	
MSPRC1315FCZ1	20- 15	AD		C	
MSPRC1316FCZ1	20- 22	AE		C	
MSPRC1318FCZ1	14- 51	AA		C	
"	20- 33	AA		C	
MSPRC2175FCZZ	20- 31	AA		C	
MSPRC2631FCZZ	15- 12	AC		C	
"	32- 12	AC		C	
MSPRD0092QSZZ	20- 28	AE		C	
MSPRD0189QSZZ	2- 11	AB		C	
MSPRD0190QSZZ	14- 11	AD		C	
MSPRD0191QSZZ	14- 12	AD		C	
MSPRD0192QSZZ	14- 13	AD		C	
MSPRD0194QSZZ	17- 3	AD		C	
MSPRD0196QSZZ	27- 26	AC		C	
MSPRD0198QSZZ	27- 23	AC		C	
MSPRD0201QSZZ	16- 6	AC		C	
MSPRD0202QSZZ	17- 21	AB		C	
MSPRD0204QSZZ	33- 30	AC		C	
MSPRD0205QSZZ	18- 30	AE		C	
MSPRD0206QSZZ	16- 18	AC		C	
"	33- 19	AC		C	
MSPRD0208QSZZ	36- 12	AC		C	
MSPRD0211QSZZ	5- 14	AC		C	
MSPRD0216QSZZ	27- 13	AD		C	
MSPRD0218QSZZ	28- 11	AD		C	
MSPRD0222QSZZ	18- 8	AC		C	
MSPRD0224QSZZ	26- 14	AB		C	
MSPRD0225QSZZ	27- 5	AC		C	
MSPRD0232QSZZ	13- 15	AB		C	
MSPRD0233QSZZ	17- 10	AC		C	
MSPRD0251QSZZ	36- 12	AD		C	
MSPRD0276QSZZ	10- 50	AS		C	
"	31- 24	AS		C	
MSPRD0277QSZZ	31- 25	AN		C	
MSPRD0287QSZZ	17- 40	AC		C	
"	34- 27	AC		C	
MSPRD0302QSZZ	20- 45	AC		C	
MSPRD0305QSZZ	5- 24	AC	N	C	
MSPRD0309QSZZ	6- 5	AC	N	C	
MSPRD0310QSZZ	6- 28	AC	N	C	
MSPRD0313QSZZ	6- 50	AC	N	C	
MSPRD0314QSZZ	6- 14	AD	N	C	
MSPRD0316QSZZ	7- 40	AC	N	C	
MSPRD0322QSZZ	23- 33	AC	N	C	
MSPRD0326QSZZ	24- 17	AC	N	C	
MSPRD0327QSZZ	24- 15	AC	N	C	
MSPRD0328QSZZ	24- 11	AC	N	C	
MSPRD0329QSZZ	20- 46	AC	N	C	
MSPRD0340QSZZ	17- 47	AC	N	C	
MSPRD0342QSZZ	5- 9	AD	N	C	
MSPRD0347QSZZ	20- 20	AD	N	C	
MSPRK0001YSZZ	21- 33	AB		C	
MSPRP0123QSZZ	5- 35	AD		C	
MSPRP0145QSZZ	11- 6	AF		C	
MSPRP0306QSZZ	5- 31	AC	N	C	
MSPRP0311QSZZ	6- 26	AC	N	C	
MSPRP0312QSZZ	8- 21	AD	N	C	
MSPRP0315QSZZ	4- 30	AD	N	C	
MSPRP0345QSZZ	34- 8	AD	N	C	
MSPRP2830FCZZ	19- 14	AA		C	
MSPRT0091QSZZ	20- 9	AC		C	
MSPRT0197QSZZ	26- 16	AB		C	
MSPRT0203QSZZ	35- 10	AC		C	
MSPRT0214QSZZ	22- 28	AB		C	
MSPRT0217QSZZ	27- 14	AC		C	
MSPRT0221QSZZ	14- 39	AB		C	
MSPRT0229GCAZ	2- 15	AC		C	
"	26- 28	AC		C	
"	28- 7	AC		C	
MSPRT0257QSZZ	23- 32	AC		C	
MSPRT0308QSZZ	5- 36	AC	N	C	
MSPRT0317QSZZ	8- 27	AC	N	C	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
[N]					
NBLTT0002QSZZ	12- 29	AH		B	
NBLTT0024QSZZ	27- 20	AG		B	
NBLTT0026QSZZ	10- 19	AF		B	
NBLTT0029QSZZ	35- 25	AG		B	
NBLTT0033QSZZ	6- 42	AF	N	B	
NBLTT0034QSZZ	8- 10	AF	N	B	
NBLTT0035QSZZ	8- 18	AE	N	B	
NBLTT0036QSZZ	7- 38	AF	N	B	
NBLTT0038QSZZ	10- 45	AF	N	B	
NBRGC0017QSZZ	7- 39	AC		C	
"	8- 23	AC		C	
NBRGC0018QSZZ	14- 31	AD		C	
"	4- 13	AD		C	
"	6- 17	AD		C	
NBRGC0019QSZZ	27- 18	AD		C	
NBRGC0020QSZZ	21- 11	AH		C	
NBRGC0021QSZZ	21- 15	AD		C	
NBRGC0100FCZ1	16- 19	AC		C	
"	33- 18	AC		C	
"	35- 5	AC		C	
NBRGC0529FCZZ	35- 32	AD		C	
NBRGM0096FCZ1	6- 7	AC		C	
NBRGM0501FCZZ	26- 10	AB		C	
"	28- 16	AB		C	
"	5- 28	AB		C	
"	7- 22	AB		C	
"	8- 12	AB		C	
NBRGP0011QSZZ	12- 33	AC		C	
NBRGP0012QSZZ	12- 22	AC		C	
NBRGP0025QSZZ	23- 29	AN	N	C	
NBRGP0041GCZZ	15- 21	AD		C	
"	32- 21	AD		C	
"	5- 41	AD		C	
NBRGP0299FCZZ	22- 23	AC		C	
NBRGY0022QSZZ	24- 1	AL		C	
NBRGY2122SCZZ	26- 8	AB		C	
"	27- 17	AB		C	
"	28- 20	AB		C	
NBRGZ0503FCZZ	34- 17	AC		C	
NCPL-0003QSZZ	22- 7	AC		C	
NCPL-0009QSZZ	25- 22	AC		C	
NCPL-0011QSZZ	14- 49	AC		C	
NCPL-0012QSZZ	20- 47	AD		C	
NCPL-0049FCBZ	6- 37	AT		C	
NFANP0004QSZZ	26- 31	BB		B	
NFANP0011QSZZ	30- 38	AS	N	B	
NFANP0015QSZZ	3- 5	BA	N	B	
NGERH0001YSZZ	21- 14	AD		C	
NGERH0002YSZZ	21- 10	AD		C	
NGERH0010QSZZ	25- 12	AD		C	
NGERH0011QSZZ	25- 17	AD		C	
NGERH0027QSZZ	12- 30	AH		C	
NGERH0036QSZZ	22- 16	AC		C	
NGERH0037QSZZ	22- 20	AC		C	
NGERH0038QSZZ	22- 21	AC		C	
NGERH0039QSZZ	22- 18	AE		C	
NGERH0061QSZZ	20- 7	AD		C	
NGERH0067QSZZ	27- 8	AD		C	
NGERH0068QSZZ	27- 7	AD		C	
NGERH0074QSZZ	18- 5	AD		C	
NGERH0080QSZZ	27- 21	AE		C	
NGERH0082QSZZ	27- 22	AD		C	
NGERH0083QSZZ	25- 24	AH		C	
NGERH0084QSZZ	25- 7	AK		C	
NGERH0085QSZZ	25- 9	AE		C	
NGERH0086QSZZ	25- 10	AD		C	
NGERH0087QSZZ	25- 11	AE		C	
NGERH0090QSZZ	25- 6	AE		C	
NGERH0091QSZZ	25- 23	AE		C	
NGERH0092QSZZ	25- 13	AD		C	
NGERH0093QSZZ	25- 14	AD		C	
NGERH0095QSZZ	25- 16	AE		C	
NGERH0096QSZZ	25- 19	AE		C	
NGERH0097QSZZ	16- 20	AF		C	
NGERH0102QSZZ	36- 4	AD		C	
NGERH0103QSZZ	36- 6	AE		C	
NGERH0104QSZZ	36- 9	AE		C	
NGERH0105QSZZ	36- 10	AD		C	
NGERH0107QSZZ	16- 17	AD		C	
"	33- 21	AD		C	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
NGERH0108QSZZ	15- 17	AD		C	
"	32- 17	AD		C	
NGERH0110QSZZ	28- 18	AE		C	
NGERH0111QSZZ	28- 17	AC		C	
NGERH0112QSZZ	28- 19	AC		C	
NGERH0113QSZZ	27- 24	AC		C	
NGERH0114QSZZ	27- 25	AC		C	
NGERH0116QSZZ	8- 13	AD		C	
NGERH0117QSZZ	8- 15	AK		C	
NGERH0119QSZZ	35- 11	AD		C	
NGERH0121QSZZ	35- 24	AE		C	
NGERH0136QSZZ	21- 16	AD		C	
NGERH0152QSZZ	25- 18	AH		C	
NGERH0153QSZZ	25- 5	AH		C	
NGERH0155QSZZ	27- 27	AD		C	
NGERH0156QSZZ	16- 23	AD		C	
NGERH0158QSZZ	36- 2	AE		C	
NGERH0163QSZZ	18- 39	AG	N	C	
NGERH0166QSZZ	6- 2	AC	N	C	
NGERH0167QSZZ	6- 6	AD	N	C	
NGERH0170QSZZ	8- 11	AD	N	C	
NGERH0171QSZZ	23- 28	AR	N	B	
NGERH0173QSZZ	10- 8	AD	N	C	
NGERH0174QSZZ	10- 43	AD	N	C	
NGERH0193FCZZ	15- 11	AB		C	
"	32- 11	AB		C	
NGERH0495FCZZ	20- 5	AC		C	
NGERH0972FCZZ	20- 26	AB		C	
NGERH0990FCZZ	16- 13	AB		C	
"	33- 26	AB		C	
NGERH1207FCZZ	35- 12	AF		C	
NGERP0168QSZZ	4- 25	AD	N	C	
NGERP1385FCZZ	19- 9	AF		C	
NGERR0140QSZZ	19- 7	AD		C	
NGERR0169QSZZ	4- 26	AE	N	C	
NKOM-0005QSZZ	10- 26	AC		C	
"	17- 27	AC		C	
"	31- 13	AC		C	
"	34- 21	AC		C	
NKOM-0006QSZZ	17- 6	AC		C	
NKOM-0007QSZZ	7- 29	AC	N	C	
"	8- 26	AC	N	C	
NKOM-0009QSZZ	17- 45	AC		C	
NPLYZ0003QSZZ	12- 24	AM		C	
NPLYZ0004QSZZ	12- 23	AG		C	
NPLYZ0006QSZZ	12- 4	AD		C	
NPLYZ0016QSZZ	12- 3	AF		C	
NPLYZ0018QSZZ	8- 24	AE		B	
NPLYZ0019QSZZ	7- 25	AE		B	
"	8- 17	AE		B	
NPLYZ0027QSZZ	35- 28	AD		C	
NPLYZ0033QSZZ	4- 6	AD	N	B	
"	6- 18	AD	N	B	
NPLYZ0034QSZZ	6- 41	AD	N	B	
NPLYZ0035QSZZ	6- 38	AD	N	B	
NPLYZ0036QSZZ	10- 9	AD	N	C	
NROLM0037QSZZ	26- 7	AR		C	
NROLM0098QSZZ	23- 27	BE	N	C	
NROLM0108QSZZ	21- 22	BA	N	C	
NROLP0008QSZZ	35- 30	AD		C	
NROLP0010QSZZ	5- 30	AD		B	
"	6- 29	AD		B	
NROLP0011QSZZ	5- 18	AD		B	
NROLP0036QSZZ	18- 12	AP		C	
NROLP0049QSZZ	26- 3	AC		C	
NROLP0072QSZZ	21- 9	AP		C	
NROLP0079QSZZ	26- 4	AC		C	
"	28- 14	AC		C	
NROLP0087QSZZ	17- 41	AD		C	
"	34- 28	AD		C	
NROLP1060FCZZ	2- 14	AF		C	
"	34- 7	AF		C	
NROLP1122FCZZ	18- 15	AF		C	
"	26- 27	AF		C	
"	28- 8	AF		C	
NROLR0051QSZZ	26- 24	AL		C	
"	28- 22	AL		C	
NROLR0052QSZZ	34- 15	AN		C	
NROLR0054QSZZ	16- 10	AP		C	
"	33- 27	AP		C	
NROLR0055QSZZ	16- 14	AR		C	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
NRÖLR0055QSZZ	33- 23	AR		C	
NRÖLR0056QSZZ	28- 9	AN		C	
NRÖLR0089QSZZ	14- 30	AQ		C	
NRÖLR0094QSZZ	7- 13	AR	N	B	
NRÖLR0095QSZZ	7- 14	AR	N	B	
NRÖLR0096QSZZ	7- 12	AR	N	B	
NRÖLR0097QSZZ	7- 42	AR	N	B	
NRÖLR0922FCZZ	20- 4	AR		C	
NRÖLR1267FCZZ	20- 10	AH		C	
NRÖLR1311FCZZ	6- 39	AN		B	
NRÖLR1312FCZZ	6- 40	AN		B	
NRÖLS0100QSZZ	24- 2	BB	N	C	
NSFTB0075QSZZ	6- 10	AF	N	C	
NSFTZ0009QSZZ	5- 29	AE		C	
"	6- 30	AE		C	
NSFTZ0013QSZZ	5- 21	AF		C	
NSFTZ0017QSZZ	20- 25	AG		C	
NSFTZ0020QSZZ	22- 22	AL		C	
NSFTZ0028QSZZ	12- 27	AS	N	C	
NSFTZ0042QSZZ	26- 1	AF		C	
NSFTZ0043QSZZ	16- 29	AH		C	
NSFTZ0044QSZZ	36- 7	AC		C	
NSFTZ0045QSZZ	36- 5	AC		C	
NSFTZ0047QSZZ	15- 19	AP		C	
"	32- 19	AP		C	
NSFTZ0048QSZZ	10- 25	AG		C	
"	17- 28	AG		C	
"	31- 12	AG		C	
"	34- 22	AG		C	
NSFTZ0050QSZZ	33- 13	AH		C	
NSFTZ0054QSZZ	34- 6	AE		C	
NSFTZ0055QSZZ	18- 10	AN		C	
NSFTZ0060QSZZ	36- 8	AC		C	
NSFTZ0064QSZZ	17- 42	AD		C	
"	17- 46	AD		C	
"	34- 29	AD		C	
NSFTZ0065QSZZ	17- 5	AD		C	
NSFTZ0072QSZZ	5- 26	AP	N	C	
NSFTZ0074QSZZ	6- 15	AF	N	C	
NSRW-0002QSZZ	22- 3	AE		C	
[P]					
PBOX-0001YS13	21- 18	AM		D	
PBOX-0006QSZZ	3- 8	AF		D	
PBOX-0016QSZZ	3- 3	AN	N	C	
PBRSR0019QSZZ	26- 6	AK		B	
PBRSR0020QSZZ	28- 4	AH		B	
PBRSR0021QSZZ	28- 3	AG		B	
PBRSS0008QSZZ	7- 44	AH		B	
PCAPH0009QSZZ	22- 2	AC		D	
PCAPH0023FCZZ	29- 30	AC		D	
PCAPH1003ACZZ	29- 31	AC		D	
PCAPH1005ACZZ	29- 32	AC		D	
PCASZ0010QSZZ	13- 24	AL		D	
PCLC-0006QSZZ	14- 19	AU		B	
PCLC-0011QSZZ	35- 26	AS		B	
PCLC-0012QSZZ	16- 28	AS		B	
PCLC-0014QSZZ	35- 7	AS		B	
PCLC-0017QSZZ	4- 5	AT	N	B	
"	6- 19	AT	N	B	
PCLC-0018QSZZ	8- 25	AT	N	B	
PCLC-0316FCZZ	6- 3	AR		B	
PCOVP0053QSZZ	17- 2	AP		D	
PCOVP0055QSZZ	20- 1	AL	N	D	
PCOVP0057QSZZ	22- 17	AG		D	
PCOVP0061QSZZ	36- 11	AH		D	
PCOVP0062QSZZ	14- 32	AD		D	
PCOVP0063QSZZ	31- 10	AD	N	D	
PCOVP0064QSZZ	16- 7	AD		D	
"	33- 8	AD		D	
PCOVP0066QSZZ	10- 21	AC		D	
PCOVP0070QSZZ	33- 2	AD		D	
PCOVP0072QSZZ	21- 5	AK		D	
PCOVP0073QSZZ	21- 38	AG		D	
PCOVP0075QSZZ	13- 1	AE		D	
PCOVP0084QSZZ	35- 1	AE		C	
PCOVP0085QSZZ	3- 2	AP		D	
PCOVP0088QSZZ	17- 25	AD	N	D	
PCOVP0089QSZZ	34- 12	AD		D	
PCOVP0094QSZZ	6- 32	AD	N	C	
PCOVP0095QSZZ	9- 6	AG	N	C	
PCOVP0096QSZZ	15- 25	AN	N	C	



PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
PCOVP0096QSZZ	32- 28	AN	N	C	
PCUSF0334FCZZ	11- 11	AP		C	
PCUSG0190FCZ1	12- 20	AB		C	
"	13- 9	AB		C	
PCUSS0011QSZZ	1- 22	AB		C	
PCUSS0022QSZZ	4- 15	AW		C	
PCUSS0027QSZZ	1- 24	AA		C	
PCUSU0203FCZZ	11- 5	AE		C	
PDUC-0003QSZZ	26- 30	AG		C	
PDUC-0004QSZZ	3- 6	AL		C	
PFILZ0004QSZZ	26- 32	AM		B	
PFILZ0011QSZZ	2- 18	AQ		B	
PFTA-0019QSZZ	17- 15	AE	N	D	
PGIDH0095QSZZ	12- 39	AH		C	
PGIDH0114QSZZ	24- 8	AH	N	C	
PGIDM0065QSZZ	26- 26	AY		C	
PGIDM0067QSZZ	17- 9	AR		C	
PGIDM0068QSZZ	34- 4	AP		C	
PGIDM0070QSZZ	15- 6	AM		C	
"	32- 6	AM		C	
PGIDM0071QSZZ	15- 9	AL		C	
"	32- 9	AL		C	
PGIDM0072QSZZ	28- 21	AU		C	
PGIDM0074QSZZ	34- 23	AK		C	
PGIDM0075QSZZ	19- 1	AF		C	
PGIDM0076QSZZ	19- 2	AF		C	
PGIDM0085QSZZ	21- 1	AP		C	
PGIDM0086QSZZ	21- 2	AQ		C	
PGIDM0105QSZZ	6- 23	AQ	N	C	
PGIDM0106QSZZ	7- 45	AS	N	C	
PGIDM0107QSZZ	7- 1	AP	N	C	
PGIDM0108QSZZ	12- 35	AH	N	C	
PGIDM0109QSZZ	12- 37	AH	N	C	
PGIDM0112QSZZ	30- 11	AG	N	C	
PGIDM0113QSZZ	23- 35	AT	N	C	
PGIDM0115QSZZ	24- 18	AS	N	C	
PGLSP0003QSZZ	1- 11	BA		B	
PGLSP0004QSZZ	1- 19	AX		B	
PGSK-0008QSZZ	13- 39	AF		C	
PGSK-0011QSZZ	2- 42	AS		C	
PGSK-0012QSZZ	2- 43	AQ		C	
PGSK-0013QSZZ	2- 44	AP		C	
PGSK-0014QSZZ	2- 45	AM		C	
PGSK-0015QSZZ	2- 46	AL		C	
PGSK-0016QSZZ	2- 47	AP		C	
PGSK-0017QSZZ	29- 50	AH		C	
PGSK-0018QSZZ	29- 45	AH		C	
PGSK-0021QSZZ	10- 47	AQ		C	
PGSK-0022QSZZ	10- 48	AP		C	
PGSK-0023QSZZ	10- 49	AH		C	
PGSK-0026QSZZ	10- 56	AQ	N	C	
PGUMM0005QSZZ	26- 2	AD		C	
PGUMS0002QSZZ	12- 18	AL		C	
PMIR-0009QSZZ	11- 7	AS		B	
PMLT-0002YSZ1	21- 6	AC		C	
PMLT-0005YSZZ	21- 8	AB		C	
PMLT-0006YSZZ	21- 7	AB		C	
PMLT-0018QSZZ	22- 24	AC		C	
PMLT-0027QSZZ	26- 33	AC		C	
PMLT-0088QSZZ	2- 48	AE	N	C	
PMLT-0089QSZZ	10- 53	AC	N	C	
PMLT-0090QSZZ	28- 30	AE	N	C	
PMLT-0091QSZZ	10- 55	AD	N	C	
PMLT-0092QSZZ	10- 52	AB	N	C	
PMLT-0093QSZZ	1- 26	AB	N	C	
PMLT-0094QSZZ	13- 41	AC	N	C	
PPIPP0014QSZZ	20- 23	AC		C	
PPIPP0015QSZZ	22- 13	AG		C	
PPIPP0109FCZZ	20- 16	AB		C	
PRDAZ0002QSZZ	27- 36	AD		C	
PREFL0004QSZZ	11- 1	AP		D	
PRNGF0106FCZZ	22- 38	AC		C	
PRNGP0090FCZZ	5- 42	AA		C	
PSEL-0025QSZZ	21- 21	AA		C	
PSEL-0035QSZZ	21- 3	AE		C	
PSEL-0037QSZZ	21- 13	AG		C	
PSEL-0070QSZZ	22- 11	AF		C	
PSEL-0071QSZZ	22- 10	AF		C	
PSEL-0114QSZZ	21- 39	AC		C	
PSEL-0115QSZZ	21- 40	AD		C	
PSEL-0116QSZZ	21- 46	AB		C	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
PSEL-0117QSZZ	21- 43	AB		C	
PSEL-0124QSZZ	21- 44	AB		C	
PSEL-0132QSZZ	21- 23	AG		C	
PSEN-0001QSZZ	21- 27	AC		C	
PSHEM0338QSZZ	29- 54	AH		C	
PSHEM0342QSZZ	12- 38	AU		C	
PSHEP0035YSZZ	21- 19	AB		C	
PSHEP0324QSZZ	21- 49	AC		C	
PSHEP3029FCZZ	7- 26	AA		C	
"	8- 19	AA		C	
PSHEZ0065QSZZ	10- 7	AB		C	
PSHEZ0069QSZZ	5- 38	AE		C	
PSHEZ0077QSZZ	4- 17	AE		C	
PSHEZ0088QSZZ	1- 25	AD	N	C	
PSHEZ0099QSZZ	20- 3	AC		C	
PSHEZ0108QSZZ	13- 31	AC		C	
PSHEZ0133QSZZ	17- 7	AD		C	
PSHEZ0207QSZZ	1- 20	AC		C	
PSHEZ0208QSZZ	1- 23	AC		C	
PSHEZ0217QSZZ	13- 21	AC		C	
PSHEZ0218QSZZ	13- 20	AC		C	
PSHEZ0219QSZZ	13- 32	AC		C	
PSHEZ0220QSZZ	1- 4	AK		C	
PSHEZ0221QSZZ	1- 18	AC		C	
PSHEZ0222QSZZ	1- 21	AC		C	
PSHEZ0241QSZZ	20- 42	AB		C	
PSHEZ0244QSZZ	15- 15	AC		C	
PSHEZ0249QSZZ	35- 31	AB		C	
PSHEZ0250QSZZ	35- 29	AB		C	
PSHEZ0254QSZZ	13- 34	AC		C	
PSHEZ0266QSZZ	24- 4	AK		C	
PSHEZ0269QSZZ	29- 20	AC		C	
PSHEZ0273QSZZ	13- 38	AB		C	
PSHEZ0274QSZZ	15- 4	AC		C	
"	32- 4	AC		C	
PSHEZ0283QSZZ	3- 20	AB		C	
PSHEZ0285QSZZ	5- 20	AB		C	
PSHEZ0286QSZZ	3- 17	AE		C	
PSHEZ0301QSZZ	17- 33	AC		C	
"	34- 25	AC		C	
PSHEZ0302QSZZ	17- 34	AC		C	
"	34- 26	AC		C	
PSHEZ0307QSZZ	18- 34	AB		C	
PSHEZ0314QSZZ	17- 43	AF		C	
PSHEZ0316QSZZ	27- 35	AD		C	
PSHEZ0322QSZZ	17- 36	AD		C	
PSHEZ0325QSZZ	10- 41	AB		C	
"	31- 22	AB		C	
PSHEZ0329QSZZ	22- 34	AC		C	
PSHEZ0330QSZZ	18- 36	AC		C	
PSHEZ0333QSZZ	10- 40	AC		C	
PSHEZ0341QSZZ	27- 37	AA		C	
PSHEZ0378QSZZ	17- 17	AG		C	
"	17- 23	AG		C	
"	34- 14	AG		C	
PSHEZ0391QSZZ	16- 36	AC		C	
PSHEZ0392QSZZ	16- 37	AB		C	
PSHEZ0393QSZZ	16- 38	AA		C	
PSHEZ0394QSZZ	14- 65	AB		C	
PSHEZ0413QSZZ	4- 16	AD	N	C	
PSHEZ0414QSZZ	8- 9	AB	N	C	
PSHEZ0415QSZZ	7- 15	AE	N	C	
PSHEZ0420QSZZ	13- 43	AC		C	
PSHEZ0423QSZZ	7- 4	AP	N	C	
PSHEZ0424QSZZ	9- 12	AL	N	C	
PSHEZ0425QSZZ	9- 13	AE	N	C	
PSHEZ0426QSZZ	13- 45	AB		C	
PSHEZ0436QSZZ	5- 37	AD	N	C	
PSHEZ0448QSZZ	13- 22	AA	N	C	
PSHEZ0451QSZZ	7- 7	AC	N	C	
PSHEZ0452QSZZ	7- 2	AF	N	C	
PSHEZ0454QSZZ	7- 46	AB	N	C	
PSHEZ0455QSZZ	7- 47	AD	N	C	
PSHEZ1394FCZZ	37- 2	AC		D	
PSHT-0004QSZZ	22- 12	AC		C	
PSPAP0023QSZZ	21- 34	AC		C	
PSPAP0036QSZZ	21- 45	AC		C	
PSPAZ0696FCZZ	22- 15	AC		C	
PSPO-0003QSZZ	5- 22	AC		C	
PSPO-0004QSZZ	5- 7	AB		C	
PSPO-0020QSZZ	5- 19	AB		C	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
PSPO-0021QSZZ	26- 20	AD		C	
PSPO-0022QSZZ	8- 7	AB		C	
PSPO-0023QSZZ	5- 6	AB		C	
PSPO-0026QSZZ	17- 37	AA		C	
PTME-0014QSZZ	24- 12	AK		C	
PTME-0020QSZZ	18- 7	AC		C	
PTME-0021QSZZ	22- 25	AK		C	
PTME-0024QSZZ	23- 38	AN		C	
PTME-0029QSZZ	6- 27	AE	N	C	
PTME-0030QSZZ	7- 20	AC	N	C	
PTME-0178FCZZ	20- 30	AC		C	
PTME-0179FCZZ	20- 34	AC		C	
PTME-0271FCZZ	19- 5	AD		C	
//	4- 28	AD		C	
PTME-0282FCZZ	23- 36	AH		C	
PTPE-0018QSZZ	8- 3	AC		C	
PTPE-0021QSZZ	15- 7	AD		C	
//	32- 7	AD		C	
PTPE-0026QSZZ	22- 35	AA		C	
PTPE-0027QSZZ	29- 51	AP		C	
PTPE-0028QSZZ	29- 52	AG		C	
PTPE-0029QSZZ	29- 53	AG		C	
PTPE-0032QSZZ	12- 41	AK		C	
PTPE-0034QSZZ	29- 48	AP		C	
PTPE-0035QSZZ	29- 49	AH		C	
PTPE-0036QSZZ	12- 40	AF		C	
PTPE-0051QSZZ	13- 44	AC		C	
PTPE-0052QSZZ	9- 8	AA	N	C	
PWIR-0005QSZZ	12- 6	AQ		C	
PWIR-0006QSZZ	12- 1	AQ		C	
{Q}					
QACCBR421QCPZ	30- 19	AZ		B	
QACCDR614QCPZ	30- 19	AS		B	
QACCER624QCPZ	30- 19	AW		B	
QACCJR614QCPZ	30- 19	AW		B	
QACCLR421QCPZ	30- 19	AW	N	B	
QSW-B0017QSZZ	14- 66	AF		B	
//	16- 22	AF		B	
//	19- 12	AF		B	
//	28- 15	AF		B	
//	33- 14	AF		B	
QSW-C9292QCZZ	30- 20	AN		B	
{R}					
RCORF0002QSZZ	13- 26	AE		C	
//	29- 21	AE		C	
//	9- 32	AE		C	
RCORF0011QSZZ	29- 47	AG		C	
RCORF0012QSZZ	25- 26	AC		C	
RCORF0013QSZZ	14- 68	AG		C	
RCORF0014QSZZ	28- 29	AK		C	
RCORF0026FCZZ	5- 8	AL		C	
RCORF1036ACZZ	35- 16	AP		C	
RDENC0011QS11	30- 28	BY	N	E	
RDENC0011QS12	30- 28	BY	N	E	
RDENC0011QSZZ	30- 28	BY	N	E	
RDENC0012QSZZ	30- 29	BN	N	E	
RDTCM0015QSZZ	21- 28	AY		B	
RDTCT0006QSZZ	7- 19	AL		B	
RH-HX0001QSZZ	23- 12	AS	N	B	
RLMPU0012QSZZ	11- 2	BG		B	
RLMPU0026QSZZ	23- 26	AZ	N	B	
RLMPU0027QSZZ	23- 19	AY	N	B	
RLMPU0028QSZZ	23- 26	AZ	N	B	
RLMPU0029QSZZ	23- 19	AY	N	B	
RMOTD0023QSZZ	14- 47	AZ		B	
RMOTP0024QSZZ	27- 30	AW		B	
RMOTP0025QSNA	25- 2	BF		B	
RMOTP0027QSZZ	12- 15	BG		B	
RMOTP0029QSNA	27- 2	AV		B	
RMOTS0043QSZZ	8- 1	BG	N	B	
RMOTS0045QSZZ	10- 44	AR	N	B	
RPLU-0011QSZZ	5- 5	AQ		B	
RPLU-0015QSZZ	8- 6	AR		B	
RPLU-0024QSZZ	14- 50	AM		B	
RPLU-0026QSZZ	16- 8	AR		B	
//	33- 9	AR		B	
RPLU-0027QSZZ	27- 28	AU		B	
RPLU-0028QSZZ	20- 32	AM		B	
RSNSZ0001QSZZ	13- 11	BA		B	
RTHM-0004QSZZ	23- 8	AN	N	B	

PARTS CODE	NO.	PRICE RANK	NEW MARK	PART RANK	
{S}					
SPAKA0134RSZZ	37- 14	AL		D	
SPAKA0480QSZZ	37- 3	AW	N	D	
SPAKA0481QSZZ	37- 4	AW	N	D	
SPAKA0482QSZZ	37- 3	AW	N	D	
SPAKA0483QSZZ	37- 4	AW	N	D	
SPAKA0484QSZZ	37- 7	BE	N	D	
SPAKA0485QSZZ	37- 6	AL	N	D	
SSAKA2343QCZZ	37- 13	AA		D	
SSAKA3001CCZZ	37- 12	AA		D	
SSAKZ0019FCZZ	37- 5	AM		D	
{T}					
TCADZ0010QSZZ	37- 9	AC		D	
TCADZ0015QSZZ	37- 2	AD	N	D	
TCADZ1275FCZZ	37- 11	AB		D	
TCAUA0770FCZZ	2- 39	AB		D	
TCAUH0007QSZZ	14- 58	AD		C	
TCAUH0016QSZZ	21- 41	AC		C	
TCAUH0933FCZZ	11- 15	AB		C	
TINSE1001QSZZ	37- 2	AX	N	D	
TINSE1003QSZZ	37- 2	AW	N	D	
TINSE1005QSZZ	37- 2	AW	N	D	
TINSE1027QSZZ	37- 2	AL	N	D	
TINSE1029QSZZ	37- 2	AL	N	D	
TINSE1031QSZZ	37- 2	AL	N	D	
TINSE1053QSZZ	37- 2	AL	N	D	
TINSE1091QSZZ	37- 2	AQ	N	D	
TINSF1006QSZZ	37- 2	AZ	N	D	
TINSF1032QSZZ	37- 2	AP	N	D	
TINSF1055QSZZ	37- 2	AN	N	D	
TINSF1093QSZZ	37- 2	AU	N	D	
TINSG1008QSZZ	37- 2	AZ	N	D	
TINSG1034QSZZ	37- 2	AP	N	D	
TINSG1056QSZZ	37- 2	AN	N	D	
TINSG1095QSZZ	37- 2	AU	N	D	
TLABG0401QSZZ	2- 27	AR		C	
TLABH0289QSZZ	24- 19	AA		C	
TLABH0461QSZZ	13- 18	AG		C	
TLABH0484QSZZ	37- 2	AE	N	D	
TLABZ0058QSZZ	2- 40	AD		D	
TLABZ0366QSZZ	32- 25	AD		C	
TLABZ4047FCZZ	2- 27	AC		C	
TLABZ4312FCZZ	2- 41	AE		D	
{U}					
UCLEZ0011QSZZ	22- 32	AT		D	
UKOGZ0002FCZZ	37- 2	AD		D	
UYOK-0011FCZZ	37- 2	AA		D	
{V}					
VHPGP1A71L3-1	27- 9	AG		B	
VHPGP1S44S/-1	28- 12	AK		B	
VHPGP1S73P+-1	13- 14	AF		B	
//	16- 30	AF		B	
//	17- 19	AF		B	
//	19- 19	AF		B	
//	23- 14	AF		B	
//	28- 13	AF		B	
//	3- 9	AF		B	
//	4- 23	AF		B	
//	5- 15	AF		B	
//	6- 43	AF		B	
//	7- 32	AF		B	
VHPGP2D03//-1	13- 3	BA		B	
VHPGP2D032/-1	13- 11	BA		B	
VHPGP2D07//-1	13- 3	BA		B	
VVLLM065HB1-1	9- 4	CB		E	
{X}					
XBBSD26P03000	27- 32	AA		C	
XBBSD30P05000	14- 27	AA		C	
//	5- 12	AA		C	
//	8- 32	AA		C	
XBBSD30P08000	29- 2	AA		C	
XBBSD30P10000	20- 35	AA		C	
XBBSD40P08000	21- 4	AA		C	
XBBSF30P08000	13- 6	AA		C	
//	29- 5	AA		C	
XPBPZ30P03000	21- 24	AB		C	
XPBSC30P06ES0	14- 42	AA		C	
XPBPD30P05K00	12- 14	AA		C	
XPBPD30P06KS0	21- 17	AA		C	
//	25- 15	AA		C	
XPBPD30P08KS0	10- 27	AA		C	



### CAUTION FOR BATTERY REPLACEMENT

(Danish)

ADVARSEL !

Lithiumbatteri – Eksplosionsfare ved fejlagtig håndtering.  
Udskiftning må kun ske med batteri  
af samme fabrikat og type.  
Levér det brugte batteri tilbage til leverandoren.

(English)

Caution !

Danger of explosion if battery is incorrectly replaced.  
Replace only with the same or equivalent type  
recommended by the manufacturer.

Dispose of used batteries according to manufacturer's instructions.

(Finnish)

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.  
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan  
tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden  
mukaisesti.

(French)

ATTENTION

Il y a danger d'explosion s' il y a remplacement incorrect  
de la batterie. Remplacer uniquement avec une batterie du  
même type ou d'un type équivalent recommandé par  
le constructeur.

Mettre au rebut les batteries usagées conformément aux  
instructions du fabricant.

(Swedish)

VARNING

Explosionsfara vid felaktigt batteribyte.  
Använd samma batterityp eller en ekvivalent  
typ som rekommenderas av apparattillverkaren.  
Kassera använt batteri enligt fabrikantens  
instruktion.

(German)

Achtung

Explosionsgefahr bei Verwendung inkorrektter Batterien.  
Als Ersatzbatterien dürfen nur Batterien vom gleichen Typ oder  
vom Hersteller empfohlene Batterien verwendet werden.  
Entsorgung der gebrauchten Batterien nur nach den vom  
Hersteller angegebenen Anweisungen.

### CAUTION FOR BATTERY DISPOSAL

(For USA, CANADA)

"BATTERY DISPOSAL"

THIS PRODUCT CONTAINS A LITHIUM PRIMARY  
(MANGANESE DIOXIDE) MEMORY BACK-UP BATTERY  
THAT MUST BE DISPOSED OF PROPERLY. REMOVE THE  
BATTERY FROM THE PRODUCT AND CONTACT YOUR  
LOCAL ENVIRONMENTAL AGENCIES FOR INFORMATION  
ON RECYCLING AND DISPOSAL OPTIONS.

"TRAITEMENT DES PILES USAGÉES"

CE PRODUIT CONTIENT UNE PILE DE SAUVEGARDE DE  
MÉMOIRE LITHIUM PRIMAIRE (DIOXYDE DE MANGANESE)  
QUI DOIT ÊTRE TRAITÉE CORRECTEMENT. ENLEVEZ LA  
PILE DU PRODUIT ET PRENEZ CONTACT AVEC VOTRE  
AGENCE ENVIRONNEMENTALE LOCALE POUR DES  
INFORMATIONS SUR LES MÉTHODES DE RECYCLAGE ET  
DE TRAITEMENT.

# SHARP

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